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Montgomery Ward & Co.

Satisfaction Guaranteed or Your Money Back

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FOR all these forty-nine years Ward's has been dealing fairly with the public. We pledge our customers continued fair dealing — also Better Service, Better Merchandise and even Lower Prices.

Montgomery Ward & Co.

Complete Index Pages 507 to 522

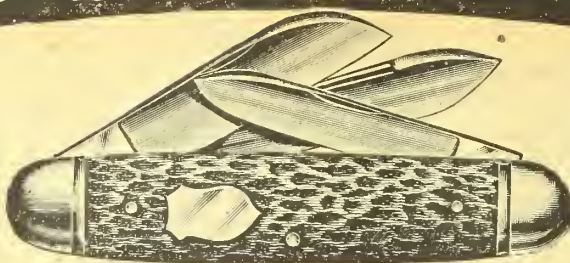


Fall and Winter - 1921-22

Pocket Knives



Substantial three-blade Cattle Knife. Length, 3 3/4 in. Stag handle with rust-proof bolsters and shield. Blades are extra heavy, oil tempered, ground and honed. A large spear blade, 2 3/4 in. long, spay blade and punch awl blade for wood or leather. Ship. wt., 4 oz. **46 E 5870—\$1.32**



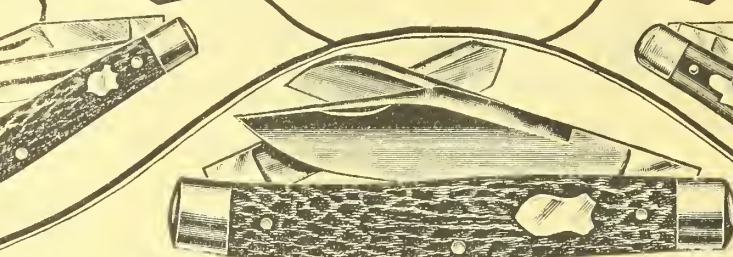
Here Is A Real Knife Bargain

A big value in a 3-blade Cattle Knife. 3 3/4 inches long. A very substantial knife, stag pattern handle and nickel silver shield and double bolsters. Rustproof brass lining. Large spear blade, 2 3/4 inches long, sheep-foot blade and pen blade. Shipping weight, 4 ounces. **46 E 5855—\$1.05**



3-Blade Premium Stock Knife. Length, 3 3/4 in. Stag pattern handle, nickel silver shield and double polished bolsters. Large 2 3/4-inch clip blade, smaller spay blade. A handy punch awl blade for wood or leather. Blades are well tempered to hold their keen edge. Ship. wt., 4 oz. **46 E 5860—\$1.35**
46 E 5861—Same as above with lock punch—\$1.57

2-blade El Toreador Jack Knife. Length, 3 3/4 inches. Stag pattern with rust-proof brass lining. Nickel silver bolsters and shield. Large polished Saber Clip Blade and smaller Pen Blade. Both forged from best steel, carefully edged and tempered. Ship. wt., 4 oz. **46 E 5890—\$1.18**



3-blade Premium Stock Knife. Length, 3 3/4 in. Stag pattern with polished double bolsters and nickel silver shield. Rust-proof brass lining. Blades are heavy and forged from the finest steel. Oil tempered, ground and honed. Large clip blade, 2 3/4 in. long. Sheep-foot blade and spay blade. Ship. wt., 4 oz. **46 E 5865—\$1.22**

Two-blade Jack Knife. Length, 3 inches. Ebony handle with rust-proof brass lining. Nickel silver bolsters and shield. Large heavy clip blade, 2 3/4 in. long, smaller pen blade. Blade tempered to hold their keen edge. Ship. wt., 4 oz. **46 E 5920—\$1.1**

2-blade Jack Knife 3 3/4 inches long. Stag pattern with polished double bolsters and nickel silver shield. Large spear blade 2 3/4 inches long. Small pen blade. A strong substantial knife built for hard use. Ship. wt., 4 oz. **46 E 5965—65c**

2-blade easy opener style Jack Knife. Length, 3 3/4 in. Stag handle with rust-proof brass lining. Nickel silver shield. Polished double bolsters. The blades are strong, well tempered and keen-edged. Large spear blade, 2 3/4 in. long and smaller pen blade. Ship. wt., 4 oz. **46 E 5882—97c**

Heavy 2-blade Jack Knife. Length, 3 3/4 in. Stag handle with rust-proof brass lining. The double bolsters and shield are nickel silver highly polished. Blades are hand forged, keen-edged and tempered for hard service. Large spear blade, 2 3/4 in. long and smaller pen blade. A strong substantial knife for general use. Ship. wt., 4 oz. **46 E 5915—96c**

4-blade Congress style Pocket Knife, length, 3 3/4 in. Stag pattern, rust-proof brass lining. Nickel silver shield and polished bolsters. Large Sheep's-foot blade, 2 3/4 inches long, one smaller sheep's-foot blade, two pen blades. Ship. wt., 4 oz. **46 E 5935—\$1.47**

Two-blade Jack Knife, 3 3/4 inches long. Redwood handle with polished bolsters. Has large spear blade, 2 3/4 inches long and one small pen blade. Both blades are well tempered. Ship. wt., 4 oz. **46 E 5975—48c**

46 E 5947—Big value in popular 2-blade chain knife. Stag pattern handle. Length of knife, 3 3/4 in.; length of large blade, 2 3/4 in. 18-in. chain that can be attached to clothing. Ship. wt., 4 oz. **74c**

This 2-blade Jack Knife is 3 3/4 inches long on 14-inch chain. Composition handle in smoked pearl effect with rust-proof brass lining. Nickel silver double bolsters and shield. Large spear blade, 2 3/4 inches long and one smaller pen blade. Shipping weight, 4 ounces. **46 E 5995—93c**

46 E 5912—A regular pocket knife. Easy to open. Has ring so can be worn on chain. Length, 3 3/4 in. Large blade, 2 3/4 in. long. One pen blade. Rust-proof, brass lined. Ebony handle. Ship. wt., 4 oz. **83c**

2-blade Pocket Knife, 3 3/4 inches long. Stag pattern with rust-proof brass lining. Polished bolsters and nickel silver shield. Has a large spear blade, 2 3/4 inches long and a handy awl blade for putting a clean hole in wood or leather. Ship. wt., 4 oz. **46 E 5940—88c**

One-blade jack knife with 14-inch chain that can be fastened to the button of clothing. Knife is 3 inches long with blade that is 2 3/4 inches long. Substantially made. Iron handle. A knife that should please most any boy. Ship. wt., 4 oz. **46 E 5950—32c**

This 2-blade Jack Knife is 3 3/4 inches long on 14-inch chain. Composition handle in smoked pearl effect with rust-proof brass lining. Nickel silver double bolsters and shield. Large spear blade, 2 3/4 inches long and one smaller pen blade. Shipping weight, 4 ounces. **46 E 5995—93c**

This 2-blade Jack Knife is built for hard service. Securely fastened into strong iron handle. Length, large clip blade, 2 3/4 in. long; one small pen blade. Ship. wt., 4 oz. **46 E 5980—37c**

3-blade Cattle Knife, 3 3/4 in. long. Smoked pearl celluloid handle. Rust-proof brass lining. Nickel silver bolsters and shield. Large clip blade, 2 3/4 in. Spay blade. Awl blade. Ship. wt., 4 oz. **46 E 5905—\$1.59**

3-blade Premium Stock Knife, length, 3 3/4 in. Handles are finest mother-of-pearl. Nickel silver bolsters and shield. Rust-proof brass lining. The blades are forged from finest English steel. Large clip blade, 3 in. long. Large spay blade, 3 in. long. Ship. wt., 4 oz. **46 E 5875—\$2.97**

46 E 5902—Two-blade fly lock Pocket Knife. Latest improvement over the press button knife. Sliding button opens blade instantly and locks it in position. Length, 3 3/4 in. Length of large blade, 1 1/2 in. One pen blade. Rust-proof, brass lined. Composition handle. Ship. wt., 4 oz. **\$1.31**
46 E 5904—Same as above but nickel silver handle. \$1.39

3-blade Premium Stock Knife. Length, 3 3/4 in. Stag pattern, rust-proof brass lining. Nickel silver bolsters and shield. Blades forged from high grade English steel. Large clip blade, 3 in. long. Also has a spay blade and a lock punch blade for punching holes in wood or leather. Ship. wt., 4 oz. **46 E 5910—\$1.69**

3-blade Cattle Knife, 3 3/4 in. long. Smoked pearl celluloid handle. Rust-proof brass lining. Nickel silver bolsters and shield. Large clip blade, 2 3/4 in. Spay blade. Awl blade. Ship. wt., 4 oz. **46 E 5905—\$1.59**

4-blade Premium Stock Knife, 3 3/4 in. long. Stag pattern, rust-proof brass lining. Nickel silver bolsters and shield. Blades are strong, well tempered English steel. Large clip blade, 2 3/4 in. long. Sheep's-foot blade, spay blade and punch awl blade. Ship. wt., 4 oz. **46 E 5880—\$1.45**

46 E 5902—Two-blade fly lock Pocket Knife. Latest improvement over the press button knife. Sliding button opens blade instantly and locks it in position. Length, 3 3/4 in. Length of large blade, 1 1/2 in. One pen blade. Rust-proof, brass lined. Composition handle. Ship. wt., 4 oz. **\$1.31**
46 E 5904—Same as above but nickel silver handle. \$1.39

1-blade Jack Knife, 3 inches long. Bone handle. Spear blade, 2 3/4 inches long. Ship. weight, 3 ounces. **46 E 5955—Each—39c**
46 E 5956—Same knife but also has small pen blade—58c

Hunting Knives and Tool Knives



Handy Knife. Length, 3 3/4 in. Nickel silver bolsters. Spear blade, 2 3/4 in. Awl blade, screw driver and bottle opener blade and can opener. Ship. wt., 5 oz. **46 E 6060—\$1.55**

Heavy, ebony handle, clasp knife. Length, closed, 5 3/4 in. Steel lined. Strong 4-in. saber clip blade of English steel. An excellent hunting knife and good for any heavy work. **46 E 6091—\$1.37**

The Famous Marble Hunting Knife. Best quality forged steel. Extra heavy blade. Handle bound with leather. Brass guard. Leather sheath. **46 E 6085—5-inch blade. Ship. wt., 7 oz. \$2.55**
46 E 6086—6-inch blade. Ship. wt., 10 oz. 2.80
46 E 6087—7-inch blade. Ship. wt., 12 oz. 3.00
46 E 6088—8-inch blade. Ship. wt., 14 oz. 3.25

Stag handle Tool Knife. Length, 4 1/2 in. Nickel silver bolsters. Rust-proof brass lined. Best drop forged steel. Contains cutting blade, harness punch awl, w. cutter, pliers, alligator wrench, hook, screw driver and bit. C. fence wire, baling wire, etc. **46 E 6065—\$1.6**

Fine Steel Razors

Army and Navy
Blade: 3/4 inch wide, and point forged on Wardlow's English razor steel.
Grinding: 3/4 Hollow.

Tang: Half corrugated and polished.
Handle: Oval black rubber. This razor is a duplicate of one made for the United States Army and Navy and selected its fine shaving qualities and sturdy reliability. The shaving edge is stiff enough to shave the toughest beard with comfort, weighing 3 ounces.
46 E 5400—Price...\$1.25

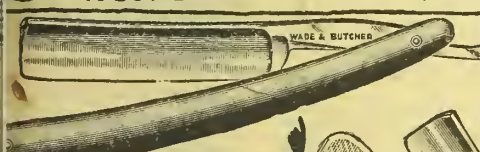
Blade: 3/4 inch wide, forged from high carbon cutler's steel.
Grinding: Full hollow.
Tang: Half gimped and polished.
Handle: Transparent celluloid in reproduction of fish horn ship wt. 3 oz.
46 E 5436—Price...\$1.97

Square or Round Point

Blade: 3/4 inch wide, forged from a special high carbon steel. **Grinding:** Full hollow. **Tang:** Gold-plated smooth finish. **Handle:** Celluloid in golden oak reproduction. Ship. weight, 3 ounces.
46 E 5404—Square Point
Price...\$2.15
46 E 5408—Round Point.
Price...\$2.15

Blade: 3/4 inch wide. Wardlow English steel. **Grinding:** Extra full hollow.
Tang: Half gimped.
Handle: Plain, hard, black rubber. Shipping weight, 3 oz.
46 E 5424—Round point. \$1.50
46 E 5432—Square point. \$1.50

Blade: 3/4-inch, forged from Wardlow's English razor steel.
Tang: Half gimped.
For barbers or self-shavers. Ship. wt., 3 oz.
46 E 5472—Price...\$1.80

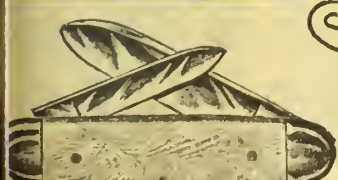
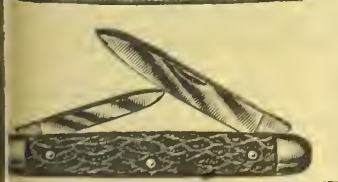
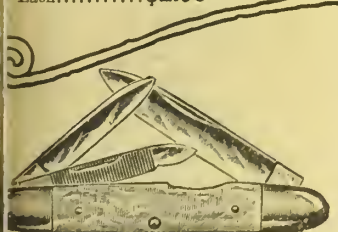


Wade & Butcher

Blade: 3/4 inch selected English Sheffield steel, square point. **Grinding:** English hollow. **Tang:** Plain. **Handle:** Hard black rubber.
A plain sensible razor made in one of the most famous shops in the world. A genuine Wade & Butcher and famous for good shaving qualities. Shipping weight, 3 ounces.
46 E 5484—Price...\$1.85

Wade & Butcher

Blade: 3/4 inch wide, selected English Sheffield steel.
Grinding: Full hollow.
Tang: Polished.
Handle: Grained celluloid in reproduction of ivory.
A very handsome model as well as an exceptionally comfortable shaver. The reliable Wade & Butcher that is sure to please. Shipping weight, 3 ounces.
46 E 5486—\$2.95



Extra flat pocket knife. Length, 2 inches. Composition handles in smoked pearl effect. Nickel silver bolsters. Two keen blades of fine steel. Length of large blade, 2 inches.
46 E 6030—Price...98c
Shipping weight, 3 ounces.

Pearl Handled Pocket Knife
An exceptional value in a useful pearl handled pocket knife of neat design. Length, 3 1/4 inches. Rust-proof, brass lined, nickel silver bolsters and shield. Two well sharpened cutting blades and one nail file. Length of large blade, 2 inches.
46 E 6025—\$1.58
Each...Shipping wt., 2 oz.
46 E 6046—Stag pattern handle pocket knife. Length, 2 3/4 inches. Large blade, 1 1/4 inches. One pen blade. Rust-proof, brass lined. Nickel silver bolsters. Shipping weight, 2 ounces. Each...98c

Stag handle pocket knife. Length, 3 inches. Nickel silver bolsters and name plate. Rust-proof, brass lined. Three cutting blades forged from finely tempered steel, and one nail file blade. Shipping weight, 3 ounces.
46 E 6020—Each...\$1.42

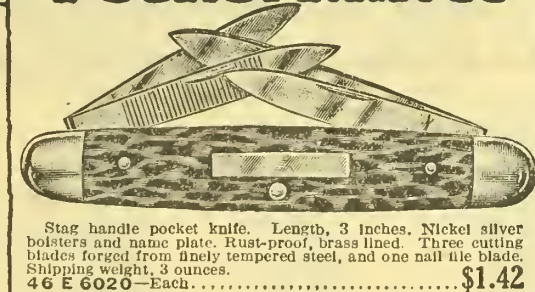


Vest pocket or women's 2-blade penknife. Length, 2 1/2 inches. Fine pearl handle, nickel silver bolsters. Rust-proof, brass lined.
46 E 6010—Each...\$1.46
Shipping weight, 2 ounces.
Pearl handled penknife. Length, 2 1/2 inches. Nickel silver bolsters and shield. Rust-proof brass lined. Length of large blade, 1 1/4 inches.
46 E 6005—Each...\$2.25
Shipping weight, 2 ounces.
One-Blade Imported Jack Knife. Length, 3 1/4 in. Redwood handle. Polished bolsters. Blade forged from selected steel, skillfully tempered to hold its edge. Shipping weight, 2 oz.
46 E 5981—Each...35c

Fancy Celluloid Handle Knife. Length, 3 inches. Two good English steel blades. The handle is reproduction of smoked pearl. Rust-proof, brass lined. Nickel silver bolsters.
46 E 6045—82c
Shipping weight, 2 ounces.
46 E 6032—Stag pattern handle pocket knife. Length 3 inches. Large blade, 2 3/4 inches long. One pen blade. Rust proof, brass lined. Nickel silver bolsters and shield. Shipping weight, 2 ounces. Each...\$1.20

Two-blade, 3 1/4-inch penknife. Composition handles, golden tortoise shell effect. Nickel silver bolster and shield. Rust-proof brass lined. Blades fine steel. Length of large blade, 2 1/2 inches.
46 E 6040—Ship. wt., 2 oz. \$1.12

Pocket Knives



The Mandarin
Blade: 3/4 inch wide, forged from Wardlow's selected English steel and beautifully beveled. Mirror polished.
Grinding: Full hollow. Hand honed and hair tested.
Tang: Full corrugated.
Handle: Grained celluloid in reproduction of ivory. The handsomest Razor in our stock. Men like it not only for its beauty, but for its superb shaving qualities. Shipping weight, 3 ounces.
46 E 5412—\$4.15

Blade: 3/4 inch wide, forged from Wardlow's English razor steel.
Grinding: Full hollow.
Tang: Pearl covered.
Handle: Celluloid reproduction of gray smoked pearl.
Shipping weight, 3 ounces.
46 E 5464—\$2.75

Blade: 3/4 inch wide. Wardlow's famous English cutler's steel, round point. Full mirror polished.
Grinding: Full hollow.
Tang: Full corrugated and mirror polished.
Handle: Plain hard black rubber. Shipping weight, 3 ounces.
46 E 5448—Price...\$2.00

Blade: 3/4 in. wide and forged from high carbon cut steel, round point. Full mirror polished.
Grinding: Full hollow.
Tang: Half gimped and mirror polished.
Handle: Celluloid in reproduction of golden shell. Will shave any beard. Shipping weight, 3 ounces.
46 E 5452—Price...\$2.15

Blade: 3/4 inch wide and made of fine, high carbon razor steel. Needle Point. **Grinding:** Extra Full Hollow. **Tang:** Gold plated. **Handle:** Transparent celluloid. Barbers' blade tempered to stand up. Shipping weight, 3 ounces.
46 E 5476—Price...\$1.98

The Popular Genco Razor
Blade: 3/4 inch wide, and well honed.
Grinding: Full hollow.
Tang: Polished.
Handle: Plain, hard, black rubber with nickel silver ends.
A razor of very reliable manufacture and one that gives a smooth, clean shave. Shipping weight, 3 ounces.
46 E 5450—Each...\$1.98

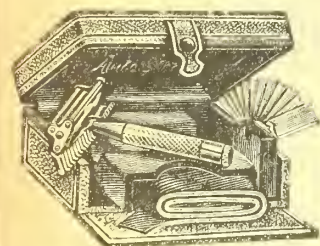
Well-Known "Genco Head Barber" Razor
Blade: 3/4 inch wide.
Grinding: Extra full hollow.
Handle: Celluloid in golden oak reproduction.
Here's a razor that is extensively preferred by barbers. A carefully honed, keen-edged razor that will give you the comfort of a smooth barber shop shave. Shipping weight, 3 ounces.
46 E 5454—Each...\$2.65



**Ever-Ready
Safety
Razor**
87c

The Standard Ever-Ready Safety Razor Outfit consisting of Razor and 6 Ever-Ready Radio Blades in velvet lined, solidly made case. Simple in construction—there are no delicate parts to get out of order. So as to insure strength and durability it is made of heavy brass material—the triple nickel plating gives it a pleasing and rust-proof bright finish. The handle is solid and heavy enough to give just the right grip when shaving. To protect the keen edges of Ever-Ready Radio Blades, each blade is individually packed to reach you in the best condition. Shipping weight, 7 ounces.

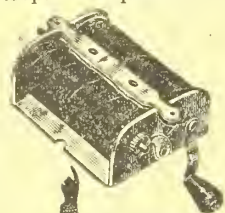
46 E 5160—Price, for complete set..... 87c
46 E 5162—Extra Ever-Ready Radio Blades.
Package of six..... 36c
Shipping weight, 6 blades, 2 ounces.



**Auto-Strop
Safety
Razor**
\$4.95

The Auto-Strop Safety Razor, with 12 carefully selected blades guaranteed to give 500 shaves, and a specially made leather strop. Complete in a leather-covered case. The frame is triple silver-plated and will not rust. Ship. weight, 7 ounces.

46 E 5175—Price..... \$4.95
46 E 5176 — Extra Auto-Strop Blades. Ship. weight, 1 oz. Package of 5..... 48c



Sharpens Them All

This handy sharpener restores safety razor blades to a keen, smooth edge. Sharpens all kinds. The two spiral leather rollers give the blade a diagonal stroke that gives a velvet edge. Simply and strongly made. Metal parts nickel-plated. Complete with 3 blade holders. Ship. wt., 10 oz.

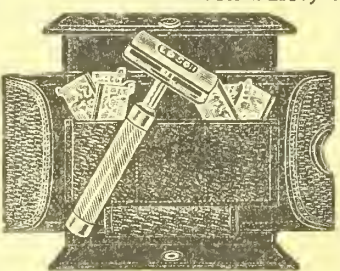
46 E 5215—Price..... \$1.12



Shaving Mirror

If you shave yourself, you'll appreciate the tremendous convenience of this splendid mirror. It extends as far as 24 inches from the wall, swings in any direction, and the glass can be tipped to any angle to get the best possible light. And it's mighty handy for general use as well as for shaving. The mirror is fine, French bevel plate glass. Diameter, 8 inches. The frame is burnished nickel-plate. Shipping weight, 4 pounds.

46 E 5218—Price..... \$3.45



Edison Safety Razor

Holds the blade at just the right angle to shave any beard closely and smoothly. Outfit consists of a heavily plated razor (can't rust) and 5 keen-edged, half-tested Edison blades, all in a compact, leather-covered case. Ship. wt., 4-ounces.

46 E 5200—Price... 63c

Edison Blades

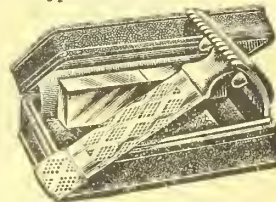
Each blade is made from selected laboratory tested steel. Carefully tempered, honed and stropped to hold that sharp edge.

46 E 5201 — Pkg. of 10 blades..... 40c
Shipping weight, 2 ounces.

Safety Razors

The New Improved Gillette Razor

Uses the same fine Gillette Blades which you have known for years—but with the New Improved Gillette Razor, your blades will give you better shaves—more comfort—and more shaves per blade. Shave once over with the New Gillette—you will find your face smoother and cooler than after going over twice with other razors—even the old-type Gillette.



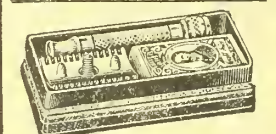
New Standard

New Improved Gillette Razor, triple silver plated. Metal box with 12 double-edged Gillette Blades. Genuine leather covered case, velvet lined.

46 E 5183—Complete Set..... \$4.75
Shipping weight, 7 ounces.

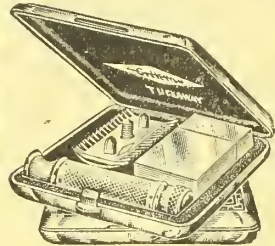
Gillette Blades

46 E 5195—Package of six. Shipping weight, 2 ounces. Package..... 42c
46 E 5220—The genuine La Petite Strop for Gillette Blades. Shipping weight, 4 oz. Price..... 85c



Gillette Brownie (Old Type)
Nickel-plated, old type Gillette Razor with 3 double-edged Gillette Blades. In artificial leather-covered metal case.

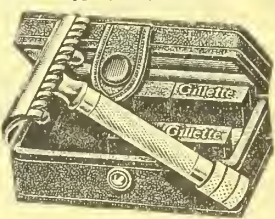
46 E 5184—Complete..... 85c
Shipping weight, 7 ounces.



Tuckaway

New Improved Gillette Razor, triple silver plated. Metal box for blades. Small, compact triple silver plated case. 12 double-edged Gillette Blades.

46 E 5182—Complete Set..... \$4.75
Shipping weight, 7 ounces.



Gillette Pioneer (Old Type)
Silver plated, old type Gillette Razor with 6 double-edged Gillette Blades. Artificial leather-covered case with two blade boxes to match.

46 E 5187—Complete..... \$2.15
Shipping weight, 7 ounces.



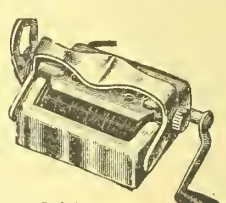
**Gem Safety
Razor**
87c

One of the most widely known and universally used safety razors made. This Gem outfit comprising razor and 6 Damascus Blades in durable, compact case, will please the most particular man. The razor is substantially made and heavily nickel-plated. The blade is automatically held just at the right angle to give a smooth, comfortable shave. The success of the razor depends more on the blade than any other feature. Gem Damascus Blades are made of high quality steel, well tempered and edged to assure shaving satisfaction. Shipping weight, 7 ounces.

46 E 5170—Price for Complete Set..... 87c
46 E 5172—Extra Gem Damascus Blades.
Package of 7..... 44c
Shipping weight, 7 blades, 2 ounces.

Durham-Duplex Stropping Set

Razor, six blades and Automatic Strop. Gives the long, diagonal stroke of the old-fashioned razor, combined with the security of safety razor. The Automatic Strop is described on page 318 under number 46 E 5225. It pays for itself over and over again by making your blade last longer and shave better. Shipping weight of outfit, 1 pound.



Durham-Duplex Blades

46 E 5211—Per package of 5. Ship. wt., 1 oz. Price... 46c



Silver Steel Safety Razor Blades

Keen-edged blades, made from high grade crucible steel. Tempered by a special process that gives a uniformly keen smooth edge. Will shave the stiffest beard. Per package of 10 blades.

46 E 5212 — Style No. fits Gem, Ever-Ready, King Superior, Yankee, Cru-Steer, Clark, Wiss and Clauss Safety Razors. Price..... 38c

46 E 5216 — Style No. Clark's Winner, Christy, Ho and Enders. Price..... 37c

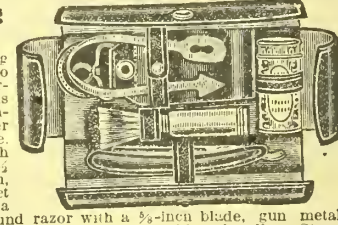
46 E 5217 — Fits Clark's Jewel, Mark Cross, O. V. B. Klass, Ascot and Federal Safety Razors. Price..... 29c

Shaving Set

Everything you need to shave yourself is in this durable compact leather covered case. Length, 7 1/2 in. Width, 3 1/2 in. Set consists of a hollow ground razor with a 3/8-inch blade, gun metal finish back and tang and black rubber handle. Strop is fine shell horsehide. Size, 25x2 1/2 in. Brush is set in rubber and telescopes into nickel-plated handle.

Williams' Shaving Stick. Ship. wt., 11 oz.

46 E 5213—Price..... \$3.47



Thermometers

Taylor Oven Thermometer

46 E 3661— \$1.48
Each.....

Taylor Oven Thermometer. With this thermometer in your oven, you can maintain the correct heat for all kinds of baking. Cook book included with each instrument, showing correct temperature for bread, pastry, roasts, etc. Mercury filled tube. Height, 5 in. Ship. wt., 6 oz.

House Thermometer

46 E 3601—House Thermometer. Length, 9 1/2 in. Magnifying, spirit filled tube. Degrees and figures plainly marked, showing from about 10 to 40 degrees below zero to 120 degrees above. Not Taylor make. Ship. wt., 11 oz. Price..... 39c

A Very Efficient Thermometer

46 E 3611 — Genuine Taylor cabinet household thermometer. Height, 8 1/2 in. Hardwood back. Black oxidized brass scale marked in white and registering from 10 to 40 degrees below zero to about 120 degrees above. Magnifying tube, with colored spirit. Ship. wt., 12 ounces. Price..... 96c

Most of these thermometers are the well-known "Tycos" brand, made by the Taylor Instrument Co. They are accurate and dependable. For our assortment of veterinary thermometers see page 508.

46 E 3641 — Genuine Taylor Black Japaned Tin Case Thermometer. Height, 7 1/2 in. Black oxidized brass scale with gold-plated screws and tube clamps. Mercury filled, magnifying tube. Registers from 10 to 40 degrees below zero to about 120 degrees above. The Tycos "Aneurast" quality and very dependable. Ship. wt., 12 ounces. Price..... \$1.39

46 E 3646 — Genuine Taylor storm glass thermometer, mounted on carved oak frame. Length, 9 1/2 in. Oxidized brass scale, spirit filled thermometer and storm glass tube marked "Fair", "Change" and "Stormy." Ship. wt., 17 oz. Price..... \$1.50

46 E 3616 — Genuine Taylor Window Thermometer. Special weatherproof metal frame, and arms that fasten to window frame outside the house. The thermometer can be read from the inside. Height, 10 in. Polished brass trimmings. Magnifying tube, colored spirit. Registers from 20 to 60 degrees below zero to about 120 degrees above. Ship. wt., 1 lb. Price..... \$1.15

Taylor Candy-Making Thermometer

46 E 3666— \$1.55
Price.....

The secret of success in candy-making lies in bringing the syrup to the right temperature. It is almost impossible to do this without a candy thermometer. Thermometer has copper case, is scaled 80 degrees to approximately 350 degrees Fahrenheit. Candy recipe book furnished with each. Length, 8 in. Shipping weight, 10 oz.

Outdoor Thermometer

46 E 3621—Distance Reading outdoor thermometer. Height, 7 1/2 in. Lithographed metal frame. Magnifying tube, colored spirit. Plainly marked in big figures. Registers from about 60 degrees below zero to about 120 degrees above. Shipping weight, 8 oz. Price..... 28c

46 E 3626 — Distance Reading Thermometer. Height, 9 1/2 in. Varnished wood back. Lithographed metal scale, plainly marked in large numerals that make it easy to read at distance of several feet. Colored spirit filled tube, registering from 20 to 60 degrees below zero to about 120 degrees above. Ship. wt., about 1 pound. Price..... 34c

Hair Clippers and Barbers' Shears

American Pattern

Lakeside Laid Steel Barber Shears. Will cut clean and hold an edge to perfection. Blade well tempered and accurately set.

Shipping weight, 4 ounces.

Full Nickel-Plated

| | | |
|--------------|------------------|--------|
| 46 E 5660—7 | inches long..... | \$1.02 |
| 46 E 5661—7½ | inches long..... | 1.12 |
| 46 E 5662—8 | inches long..... | 1.22 |



French Pattern

Barbers' Shears. Strictly hand forged. Gus metal finish. Length 7½ inches. Cut easily and smoothly. Hold their edge well. Regulation barbers' pattern and quality. Will give satisfaction both for professional use or for home hair cutting. Shipping weight, 4 ounces.

46 E 5670—.....\$1.25

French Pattern

Barber Shears. These shears are the regulation Professional Pattern and are also very suitable for home use. Solid steel forged, nickel plated. Correctly fitted so as to cut clean. Will retain edge a long time. Ship. wt. 4 oz.

| | | |
|----------------------|-------------|--------|
| 46 E 5675—Length, 7 | inches..... | \$1.20 |
| 46 E 5676—Length, 7½ | inches..... | 1.25 |
| 46 E 5677—Length, 8 | inches..... | 1.30 |

The Speed

A splendid clipper for the money. All nickel-plated. Smooth and easy in action. Cuts hair to ¼ inch.

46 E 5625—.....\$1.47
Shipping weight, 9 oz.
Extra Spring for 46E5625.
Weight, 1 ounce.
46 E 5626—Each.....9c

Roller Bearing Clippers

This is a very strong, smooth-working clipper. The body is heavily nickel-plated and polished. Cuts hair the regular length, to leave it ¼ in. long. Will hold its cutting edge for years because of the fine temper of the blades. Shipping weight, 10 ounces.

46 E 5630—.....\$2.57
46 E 5631—Extra springs to fit above clipper. Shipping weight, 1 ounce.
.....9c

Neck Shaver

Big Values At A Low Price

Here is one of the highest clipper bargains we have ever offered. Neck shaver that cuts hair nearly as close as a razor. Carefully made with well tempered blades. Smooth-working. Nickel-plated, rust-proof finish. Ship. wt., 8 oz.

46 E 5650—.....\$2.33
46 E 5651—Extra springs for above. Ship. wt., 1 oz.
.....9c

Genuine Brown and Sharpe

Ship. wt.,
abt. 1 lb.
46E5645
Size 00.

Improved pattern. Cuts almost as closely as shaving.

46 E 5646—Size 0. Bressant pattern. Cuts ½ inch. \$4.40
46 E 5647—Size 1. Bressant pattern. Cuts ¾ inch. \$4.40
46 E 5648—Extra Springs for Brown & Sharpe Clippers. Mention size of clipper. Shipping weight, 1 oz. \$4.40
.....7c

The Standard

Fine quality, built to give long service. Nickel-plated frame and plates. Hard tempered tool steel blades. Smooth working. Shipping weight, 10 ounces.

46 E 5640—Leaves hair ½ inch long. \$3.20
46 E 5641—Leaves hair ¼ inch long. Price, \$2.97
Extra springs for above clipper. Ship. wt., 1 oz.
46 E 5642—.....9c

Razor Stropps and Hones

These stropps and hones keep your razor keen-edged to make your shaves more comfortable.

Neck Shaver

Cuts almost as close as a razor. Blades made from selected tool steel, tempered to give a very durable cutting edge. Nicely proportioned throughout and nickel-plated, rustproof finish. Ship. wt., 8 ounces.

46 E 5635—.....\$2.75
Extra springs for above. Ship. wt., 1 oz.
46 E 5636—.....7c

Automatic Strop

With The True Diagonal Stroke

Strops regular style razors and any safety razor blade, to a keen, velvet edge. Gives the diagonal "heel-to-toe" stroke that assures a perfect shaving edge. The diagonal stroke is obtained by setting the bladeholder at an angle to the strop. Far simpler and stronger than the cumbersome mechanism often used. Metal parts nickel-plated. Strop is oiled leather, with a honing surface for very dull blades and a fine finishing side. All broken in, ready for use. Extra holder for safety razor blades. Width of strop, 2½ inches. Length, 20 inches. Shipping weight 12 oz.

46 E 5734—.....\$1.31

One of our best stropps and our biggest value.

One of the finest, razor stropps we ever saw, regardless of price. The sharpening strop is made from selected horsehide. Has plenty of draw and is unexcelled for quick sharpening. The finishing strop is extra soft and heavy shell horsehide. Gives a velvet edge. The strop is regulation Barbers' size—length, 26 inches; width, 2½ inches. Has strong, handy, gilt clutch swivel.

46 E 5719—.....\$1.96
Shipping weight, 11 ounces.

Automatic Strop

For Straight and Safety Razors

Especially designed to sharpen regular style razors but equally successful with any standard safety razor blade. Runs easily and is simply constructed. No wheels or complicated mechanism to get out of order. Metal parts are full nickel-plated. A boon to those who prefer the old style razors but have difficulty in stropping them to give the blade an edge with a smooth, velvet cut. Two extra holders for safety razor blades included. Width of strop, 2½ inches. Length, 18½ inches.

46 E 5737—.....\$1.15
Shipping weight, 11 ounces.

Here's The Strop For Dull Razors

The feature of this efficient strop is that it has three stropping surfaces instead of two as in most stropps. One of these surfaces is especially treated to sharpen very dull razors. Leaves the razor an unusually smooth edge. It's a double swing strop, combination

barbers' canvas and genuine horsehide. Comes broken in, ready for use. Strongly sewed, nickel-plated hook. Full size, length, 26 inches; width, 2½ inches.

46 E 5725—.....\$1.48
Shipping weight, 7 ounces.

Barbers' Solid Leather Strop

Barbers' solid leather strop. Prepared leather, self-honing sharpening strop. Heavy shell horsehide finishing strop. Gilt swivel snap. Broken in, ready for use. 26x2½ in.

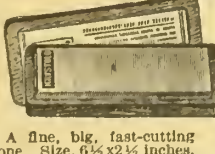
46 E 5722—.....\$2.65
Ship. wt. 11 oz.

Well known "Pike's Swaty" Hone, made in America according to the famous old original European formula. A hone that sharpens well either dry or when used with oil or water. Especially suited for barbers. For fine razors. Size, 5½ in. by 2 in. Ship. wt., 8 oz.

46 E 5757—.....65c

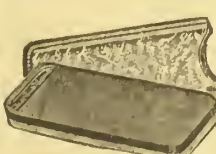


Size, 2x5½ in. Lakeside razor hone. A fine, composition hone. Made of finest abrasives. Gives good results when used with oil, water, or dry. Durable. 46 E 5747—.....72c
Ship. wt., 10 oz.



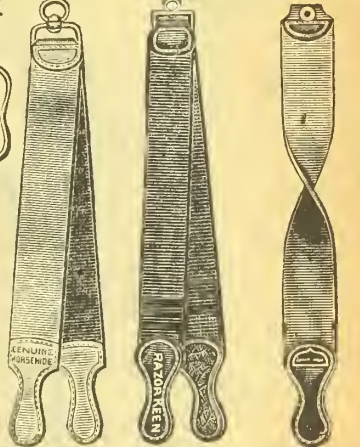
A fine, big, fast-cutting hone. Size, 6½x2½ inches. Smooth, uniform texture. We recommend it for any razor. Leaves a smooth edge that assures comfortable shaves. Each in a hardwood case. Shipping weight, 1 pound.

46 E 5751—.....\$1.30



Combination Hone and Strop. Sharpening side a special, fine composition dry hone. Finishing side is finest shell horsehide, mounted on elastic felt pad. Size, 2x5½ inches. In an artificial leather case.

46 E 5755—.....95c
Shipping weight, 8 ounces.



Self-honing double leather strop. Black sharpening side, and black cotton web sharpening side. Nickel-plated swivel. Length, 23½ inches. Width, 2½ in. 46 E 5713—.....\$1.43
Ship. wt., 9 oz.

Combination strop of black cowhide leather finishing, and black cotton web sharpening side. Nickel-plated swivel. Length, 24 in. Width, 2½ in. 46 E 5695—.....55c
Ship. wt., 6 oz.

Single shell horsehide strop. Sharpening side is natural finish. Finishing side is tau waxed. Length, 24 in. Width, 2½ in. Ship. wt., 4 oz. 46 E 5707—.....\$1.15

Four-Sided Combination Cushion Strop and Hone

Combination four-sided cushion strop and hone. Hone and special leather sharpening side particularly for dull razors. Two leather sides have excellent finishing surfaces. Screw tension. Length, 13½ in.

46 E 5728—.....65c
Shipping weight, 9 ounces

Ride a
Bicycle



PUMPS, TUBES AND VALVES

Bicycle Pumps

A good Foot Pump at a low price. Size, 1 1/2 x 12 inches, well made with steel barrel, cast base and screw top. A pump that will give satisfaction in service. Shipping weight, 2 pounds. **60 E 3507.....39c**



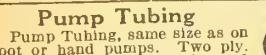
Bicycle Tool Kit Pump

Made of seamless brass tubing, nickel plated. 7/8-inch diameter. Shipping weight, 4 ounces. **60 E 3522.....17c**



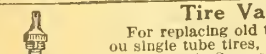
Bicycle Frame Pump

Powerful as a foot pump. Made of seamless brass tubing, nickel plated. Will not rust. Fitted with clip to fit all bicycles. Shipping weight, 7 ounces. **60 E 3518.....50c**



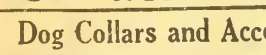
Pump Tubing

Pump tubing, same size as on foot or hand pumps. Two ply. Shipping weight, per foot, 2 ounces. **60 E 3525—Per Foot.....8c**



Tire Valves

For replacing old torn out valves on single tube tires, nothing equals the (patent) Sampson Oval Base Valve. Large bearing surface gives a sure anti-leak grip on single tube tire of any thickness. Shipping weight, 2 ounces. **60 E 3815.....30c**



Dog Collars and Accessories

Heavy Harness Leather

Heavy black double harness leather, two rows fancy brass studs, name plate and trimmings. Lock buckle, well sewed and finished. Lengths given are inside hole measurements. Average shipping weight, 8 oz.

| | | |
|-----------|-------------------------------|--------|
| 60 E 5255 | 15-inch, 1-inch wide..... | \$1.23 |
| 60 E 5256 | 17-inch, 1-inch wide..... | 1.28 |
| 60 E 5257 | 19-inch, 1-inch wide..... | 1.33 |
| 60 E 5258 | 21-inch, 1-inch wide..... | 1.38 |
| 60 E 5259 | 16-inch, 1 1/2-inch wide..... | 2.10 |
| 60 E 5260 | 18-inch, 1 1/2-inch wide..... | 2.15 |
| 60 E 5261 | 20-inch, 1 1/2-inch wide..... | 2.20 |

Leather Lock Buckle

Ornamented with round brass studs and name plate. Lengths given are inside hole measurement. Average shipping wt., 8 oz.

| | | |
|-----------|--------------------------|-----|
| 60 E 5234 | 9 inches, 3/4 inch..... | 40c |
| 60 E 5235 | 11 inches, 3/4 inch..... | 45c |
| 60 E 5236 | 13 inches, 3/4 inch..... | 50c |
| 60 E 5237 | 15 inches, 1 inch..... | 52c |
| 60 E 5238 | 17 inches, 1 inch..... | 53c |
| 60 E 5239 | 19 inches, 1 inch..... | 55c |



Padlock for Dog Collar

60 E 5275—Brass padlock for dog collars. With key. Weight, 1 ounce. **25c**



Dog Biscuits

| Art. No. | Size of Box | Ship. Wt. | Price |
|-----------|-------------|--------------|--------|
| 60 E 5295 | 5 pounds | 5 1/4 pounds | \$.75 |
| 60 E 5296 | 50 pounds | 55 pounds | 6.25 |

For Puppies

| Art. No. | Size of Box | Ship. Wt. | Price |
|-----------|-------------|--------------|-------|
| 60 E 5297 | 5 pounds | 5 1/4 pounds | .80 |

Flea Powder

60 E 5279—to be used in kennel. Shipping weight, 7 ounces. **40c**

High in Quality

Amateur Telegraph Instruments



A good instrument for the beginner to practice on. Consists of a full-size key and sounder, mounted on a polished oak base. Price includes an up-to-date Operator's Manual, containing Morse code, instructions for telegraphing, exercises and general information. Shipping weight, 2 1/2 pounds.

63 E 1715—With 4-Ohm sounder. Complete, with Operator's Manual of Telegraphy. **\$2.30**

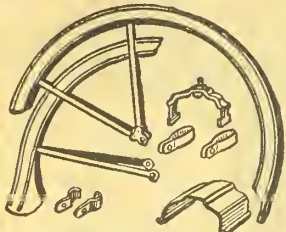
63 E 1719—With 20-Ohm sounder. Same as above except the sounder magnets are wound to a higher ohm resistance to increase sensitivity. Complete, with Operator's Manual of Telegraphy. **\$3.10**

Pony Relay

A relay working in conjunction with each instrument will improve the efficiency of any telegraph system, when several instruments are connected on the same line. Can also be used on burglar alarm systems. Finely finished. Made of high grade materials. Shipping weight, 2 1/2 pounds. Resistance 20 ohms. **63 E 1745**—Pony Relay. **\$3.60**

REPAIR PARTS FOR ALL BICYCLES

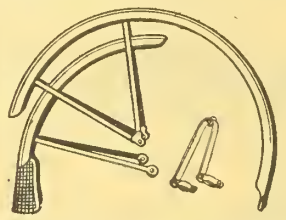
MUD GUARDS CRANKHANGERS AND FORKS



'Deep Center Mud Guards

Will Fit
Any
Bicycle
With
28-Inch
Wheels

Wide deep center, drop side steel mud guards similar to those used on most expensive motorcycles. Not only improves appearance of bicycle but give you full protection against dirt or slush flying from tires. Front guard fitted with deep metal flare which takes the place of mud flap. Well made and nicely finished. Shipping weight, about 4 1/2 pounds. **60 E 3393—Per pair.....\$1.28**

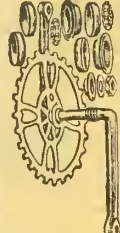


Corrugated Steel Mudguards

A medium priced well made mud-guard complete with braces and protector flap, as illustrated. Should be on every wheel. Light in weight and adds greatly to the appearance of a bicycle. Plain black. Shipping weight, about 4 pounds. **60 E 3395**—Pair, complete with attaching outfit. **82c**

Complete Crank Hanger Repair Outfit

This outfit is complete so that the new equipment will run as smoothly and freely as the hanger that originally came with your bicycle. This repair hanger can easily be put on any bicycle that was originally fitted with a one piece hanger. The sprocket is standard size, 26 tooth and takes a regular 3/4-inch width by 1-inch pitch chain. Complete set hall bearings, with cups, cones and washers furnished. The crank hanger is of high-grade drop forged steel, accurately made and nicely finished. With this entire outfit you can easily and quickly equip your bicycle with an up-to-date repair hanger that will run smoothly and give entire satisfaction. Shipping weight, about 4 1/4 pounds. **60 E 3375.....\$4.15**



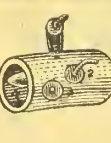
Repair Forks

Made to fit any size bicycle whether 20, 22 or 24 inch frame. They are made from the best steel tubing with forged crown. Carefully constructed and very strong. Stems are 3 1/2 inches long 5 inches of which is threaded. Can be easily cut off to required length with a hack saw or file. Diameter of stem 1-inch. Threaded 24 threads to inch. Will fit all makes and models of bicycles. Each fork is fitted with cone for head fittings and with screw for attaching front mud guard. These are the highest grade best finished repair forks that can be made. Shipping weight, 3 pounds. **60 E 3431**—Anti-rust finish. **\$1.90**
60 E 3432—Highly Nickel-plated and Buffed. **\$2.69**



TIRE REPAIR AND PROTECTION

Tire Repair Tools
For repairing single tube tires. Put sufficient rubber bands on tool to fill puncture, cover with rubber cement and insert; release the catch and withdraw the tool. Shipping weight, 2 ounces. **60 E 3818.....16c**



Metal Puncture Closer
Closes cuts in single tube tires or outer casings. Furnished in set of 4 assorted sizes: two small, one medium, one large. Shipping weight, 4 ounces. **60 E 3827**—Set of 4 **19c**



Tire Tape
Most necessary in your bicycle equipment. Extra strong. Weight, about 4 ounces each. Shipping weight, about 5 ounces. **60 E 3735.....13c**



"Mor-Mile" Tread Bands
It's an economical idea just like half soles shoes. Fit 28-inch tires only. Just inflate the tire hard, clean both the tire and tread band with gasoline, then apply an even coat of cement to each. Allow cement to set for about 5 minutes, then slip band over tire and the job is completed. Shipping weight, 7 ounces. **60 E 3295.....48c**

CYCLOMETERS AND MILEAGE RECORDERS

New Departure Cyclometer
For 28-Inch Wheels Only
An absolutely accurate, excellently made, low priced cyclometer. Registers 10,000 miles, then repeats. Shows tenths of miles. Silver color dial, black numbers. Attaches to front axle. Shipping weight, 5 ounces. **60 E 3630.....78c**

Veeder Trip and Total Mileage Cyclometer
This cyclometer is the best and smallest now in use. Mechanical parts are scientifically designed and accurately made. Registers the trip and total mileage at the same time on two separate dials. For 28-inch wheels. Shipping weight, 6 ounces. **60 E 3626.....\$2.10**

Radio and Telegraph Equipment



Professional Telegraph Instruments
A high-grade telegraph set. Sounder and key mounted on polished wood base. The frame of the sounder is polished brass, with aluminum lever and hard rubber-covered magnets. The key has a polished brass frame with steel lever, hard rubber knob and circuit breaker. Shipping weight, 3 pounds. **63 E 1730**—4-Ohm Combination set. **\$4.15**
63 E 1732—20-Ohm combination set. Same as above except the sounder magnets are wound to a higher ohm resistance to increase sensitivity. **\$4.30**

Steel Lever Keys
Steel Lever keys same quality as used on our professional set. Shipping weight, 14 ounces. **63 E 1739**—Leg key with legs to go through table or desk. **\$2.15**
63 E 1741—Legless Key to screw in top of table or desk. **\$2.10**

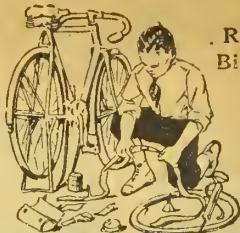
Professional Sounders
Sounders same as used on our professional combination set. Shipping weight, 24 ounces. **63 E 1735**—4-Ohm Sounder. **\$2.45**
63 E 1737—20-Ohm Sounder. **\$2.68**

Radio Amateurs Attention!

We have one of the most complete stocks of high grade, standard make radio merchandise in the country. The progressive amateur will find instruments here to make complete outfits or to make more complete the outfit already in use.

We offer you this high grade merchandise at very attractive prices. Besides carrying the most popular items of the best known manufacturers we carry a great many items made to our own specifications which are much lower in price than usually asked for merchandise of equal quality. We guarantee our special made merchandise to be equal in quality to any similar article on the market, regardless of price.

You take no chances of getting inferior merchandise when you buy from us as our guarantee of satisfaction fully protects you.



Ride
Bicycle

RUBBER AND RIM CEMENT

Wood Rim Cement
A good quality wood rim cement in liquid form. Comes in tube for one tire. Size of tube, 1 1/2 x 6 inches. Shipping weight, each, 10 ounces. **60 E 3753.....12c**
2 Tubes.....12c

Hawthorne Tire Puncture Solution
For mending old leaky, porous or punctured bicycle tires. Stops punctures perfectly and does not dry up. Is not affected by cold or heat. Will not clog or injure the valve. Very simple to apply. One tube is sufficient for one tire. Size of tube, 1 1/2 x 6 inches. Shipping weight, each, 10 ounces. **60 E 3760.....12c**
60 E 3762.....12c
Two tubes.....30c

Rubber Cement
Excellent quality rubber cement for patching double tube tires. Safe to handle. Non-explosive. Comes in tubes 4 x 1 inches. **60 E 3743**—2 tubes. Shipping weight, about 6 ounces. **12c**
2 tubes for.....12c

ENAMEL
One can will enamel a bicycle and give it a hard, smooth and brilliant finish. Put up in 1/2 pint cans. Weight, about 5 ounces. Shipping weight, 8 ounces. Per can.....12c

| | | |
|-----------|----------------------|-----|
| 60 E 3770 | Black..... | 12c |
| 60 E 3771 | Royal Blue..... | 12c |
| 60 E 3772 | Vermillion..... | 12c |
| 60 E 3773 | Dark Green..... | 12c |
| 60 E 3774 | Battleship Grey..... | 12c |
| 60 E 3775 | Yellow..... | 12c |
| 60 E 3776 | White..... | 12c |
| 60 E 3777 | Khaki..... | 12c |

TOOL BAGS, AND LOCKS

Tool Bag
A classy, durable leather tool bag, latest design. Attaches to back of saddle or on frame. Shipping weight, 6 ounces. **60 E 3572.....45c**

Bicycle Lock
A lock you can depend upon. Made of brass, will not rust. Has a shackle made to take 3 or 4 spokes for fork or sprocket and rear frame. Length of shackle, 3 1/2 inches. Shipping weight, abt. 8 oz. **60 E 3657.....60c**

FLAGS

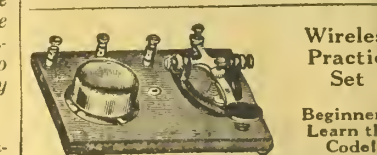
Excelsior Bunting Flags
These flags are made of wool mixed bunting woven especially for use. Has the appearance of an all wool bunting flag and will wear equally as well. Stars and stripes woven in canvas heading and mottled. All have stars except two three foot.

| Article Number | Size Feet | Price | Article No. | Size Feet | Price |
|----------------|-----------|--------|-------------|-----------|--------|
| 60 E 6221 | 2 x 3 | \$1.35 | 60 E 6232 | 5 x 8 | \$4.00 |
| 60 E 6224 | 2 1/2 x 4 | 1.95 | 60 E 6234 | 5 x 10 | 4.00 |
| 60 E 6225 | 3 x 5 | 2.25 | 60 E 6236 | 6 x 10 | 5.00 |
| 60 E 6228 | 4 x 6 | 2.90 | 60 E 6238 | 8 x 12 | 8.00 |
| 60 E 6230 | 4 x 8 | 3.45 | 60 E 6240 | 10 x 15 | 12.00 |

U. S. Flags Printed Oil Colors. Unmounted
These flags are done in oil pigment, have stars and stripes in bright colors and are fast. Will not fade or run; sewed heading of metal eyelets, size, about 3 x 5 feet. Weight, 10 ounces. **60 E 6133.....90c**

Low in Price

Boy's! Get into the radio game. You'll find the most interesting and exciting sport you have ever had. Just think of being able to "listen in" calls from the big stations or from mysterious unknown sources and sending your messages into the air to be picked up by some other boy a distant town.

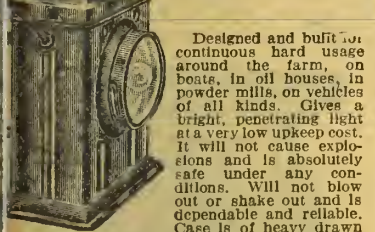


Wireless Practice Set
Anyone learning wireless must know the code. Without it, it is impossible to understand the signals. Send for a wireless practice set and how easy it is to learn the code. Set consists of a key and buzzer mounted on a polished wood base. Buzzer reproduces accurately the pitched sounds of wireless stations. Connected dry battery to the binding posts on the set by means of a short piece of wire, press down on the key and a buzzing sound will be produced. In very short time your ear will become accustomed to the various combinations of dots and dashes representing different letters and numbers. Practice until you can understand the signals the speed sent by average stations and you will be able to send messages. A very good way to learn the code quickly is to place two of these sets in separate rooms with an operator at each set and practice sending messages back and forth. Chart included with set. Base size, 7 x 4 1/2 inches. Shipping weight, 3 pounds. **63 E 1750**—Wireless practice set. **\$2.00**

FOR SAFETY AND DEPENDABILITY FLASHLIGHTS AND BATTERIES

AND LANTERNS

Delta Two-Cell Hand Lantern



Designed and built for continuous hard usage around the farm, on boats, in oil houses, in powder mills, on vehicles of all kinds. Gives a bright, penetrating light at a very low upkeep cost. It will not cause explosions and is absolutely safe under any conditions. Will not blow out or shake out and is dependable and reliable. Case is of heavy drawn steel. Size, 7 1/2 x 5 1/2 x 2 1/2 in. Flared end prevents upsetting. Triple silver-plated reflector, width 3 1/4 in. Switch to turn light on and off. E 2026—Lantern with 3-volt bulb for use with two regular No. 6 dry cells. Ship. wt., 1 1/2 lb. without batteries. \$1.49

E 2028—Lantern with 6-volt bulb and with two long life, 3-volt batteries, gives a very bright light and has wonderful lasting powers. P. wt., 8 lbs. Complete with batteries. \$3.10

Delta One-Cell Spotlight

Throws a brilliant shaft of light. Just the thing for farmers, automobilists, watchmen and inspectors. Metal case with handle and ball. Finished in black enamel. Size, about 3 7/8 x 1 1/2 in. E 2034—Lantern fitted with 1 1/2-volt bulb for use with any standard No. 6 battery. Ship. wt., 12 oz. Price, without battery. 98c

E 2036—Lantern fitted with 3-volt bulb and 3-volt battery. Ship. wt., 5 lbs. Price, with battery. \$1.78

Delta Utility Battery Spotlight and Trouble Lamp

Can be used as a Ford spotlight and trouble light, as a boat light, or for general purposes. Throws a light 200 ft. and more. Use it as a spotlight and there is no bowing to be done. Just

clip the lamp to windshield and put the battery on the seat. As a trouble lamp it can be removed from windshield and used to illuminate the work or the chances. As a utility lantern it is easily carried around and can be adapted to use. Comparatively inexpensive. Operate. Switch turns light on or off. Deep hole silvered reflector. Four-foot cord. Battery container and lamp made of metal and finished in black enamel.

E 1990—Utility Spotlight complete with light bracket but without battery. Has 3-volt for use with two No. 6 dry cells. Ship. wt., 1 lb. Price. \$2.65

E 1993—Utility Spotlight with 6-volt bulb and long life 3-volt batteries. Gives a very bright light and batteries will last much longer than regular No. 6 batteries. Ship. wt., 8 lbs. Price. \$4.25

3-Volt Lighting Battery

Designed for use with hand lanterns, bicycle lamps and other light devices having a small lamp operated by battery current. For these uses will give about twice the life of a regular No. 6 dry cell for this reason is more economical. Size as regular battery. 2 1/2 x 3 1/2 in. Will replace two regular dry cells on any lighting system. Not recommended for ignition work. E 2529—Each. 80c

Page 587 for Regular No. 6 Dry Cell Battery.

Safe, Handy, Convenient Electric Caplight

E 2081—Complete. Price. \$2.15

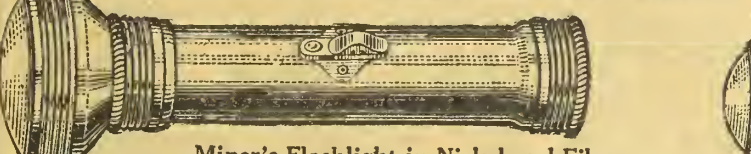
Meets the requirements of hunters, miners, engineers, inspectors, and others who need a strong concentrated light. Can't blow out or cause fires. Perforated band being free to work. Consists of a door with lens, diam. 1 1/2 in., a battery and a 3-foot connecting cord. The battery can be used in the pocket or laid in any convenient place. Reflector can be attached to the cap or else by means of the attachment pins. Ship. wt., 1 lb. Uses bulb E 2311.

E 2240—Extrn. Battery. Shipping weight, 1 lb. Price. 45c

Tungsten Portable Searchlight

Equipped with a specially designed extra large parabolic reflector, outside diameter about 3 1/4 inches and powerful beveled lens. Fiber case is made of fine black vulcanized fibre with heavy nickel-plated fittings. The nickel case is made of seamless brass, highly nickel-plated. Double shock absorber protects base of lamp from breakage caused by ordinary falls or jolts. Complete with battery and Mazda Tungsten Lamp.

| Fibre Case | | Nickel-plated Case | | No. of Cells | Size inches | Shlp. Wt. |
|------------|--------|--------------------|--------|--------------|---------------|-----------|
| Art. No. | Price | Art. No. | Price | | | |
| 63 E 2021 | \$1.80 | 63 E 2121 | \$1.95 | 2 | 1 1/4 x 6 1/4 | 25 oz. |
| 63 E 2022 | 2.08 | 63 E 2123 | 2.20 | 3 | 1 1/4 x 9 | 30 oz. |



Miner's Flashlight in Nickel and Fiber

The specially constructed reflector of this light enables it to produce a broad, bright light that will light up the way for many feet. Very desirable for hunting, fishing and camping trips. Has double contact switch for flash or continuous light. Diameter of reflector, about 2 1/4 in. Complete with battery and Mazda Tungsten Lamp. Will not short circuit on contact with metals. Has shock absorber to protect base of lamp. Nickel case is of brass in polished nickel finish. Fiber case is strong and durable.

| Fibre Case | | Nickel-Plated Case | | Size inches | No. of Cells | Shlp. Wt. Oz. |
|------------|--------|--------------------|--------|---------------|--------------|---------------|
| Art. No. | Price | Art. No. | Price | | | |
| 63 E 2013 | \$1.05 | 63 E 2108 | \$1.20 | 1 1/4 x 5 1/4 | 2 | 18 |
| 63 E 2016 | 1.29 | 63 E 2055 | 1.57 | 1 1/4 x 6 1/4 | 2 | 22 |
| 63 E 2020 | 1.45 | 63 E 2057 | 1.90 | 1 1/4 x 9 | 3 | 27 |



Swivel

Two-cell fiber case Miner's or any part of the clothing. Permits free use of both hands, making it possible in some cases would otherwise require two. Recommended for all kinds of use camp, automobile, etc. Length, 6 1/2 in. Diam., 1 1/4 inches with 2 1/4 in. reflector. Take 63 E 2204 battery, 63 E 2306 bulb. Ship. wt., 22 oz.

Clip Miner's Type Flashlight

type flashlight with swivel clip for attaching to belt, pocket. Permits free use of both hands, making it possible in some cases would otherwise require two. Recommended for all kinds of use camp, automobile, etc. Length, 6 1/2 in. Diam., 1 1/4 inches with 2 1/4 in. reflector. Take 63 E 2204 battery, 63 E 2306 bulb. Ship. wt., 22 oz.

63 E 2030—Price, complete with two-cell battery and Mazda Tungsten bulb. \$1.59

Tubular Batteries

American Flashlight Batteries are all of standard size and will fit all makes of flashlight cases. They are of the very best quality. We guarantee them to equal the burning life of any make of flashlight battery.

63 E 2201—American two-cell battery. No. 5791. Height, 3 1/4 in. Diam., 1 in. Fits 1 1/4 x 5 1/4 in. Tubular lights. This is the same size as Eveready 791, France 1029, French 121. Ship. wt., of 3, 15 oz. Three for. 63c

63 E 2204—American two-cell battery. No. 5790. Height, 4 1/4 in. Diam., 1 1/4 in. Fits 1 1/4 x 6 1/4 in. Tubular lights. This is the same size as Eveready 790, France 1028, French 221. Ship. wt., of 3, 27 oz. Three for. 72c

63 E 2210—American three-cell battery. No. 5705. Height, 7 in. Diam., 1 1/4 in. Fits 1 1/4 x 9 in. Tubular light. This is the same size as Eveready 705, France 1027, French 231. Ship. wt., of 3, 45 oz. Three for. \$1.05

Flat Style Batteries

| Article No. | No. Cells | Size | Price for 3 |
|-------------|-----------|---------------------|-------------|
| 63 E 2232 | 2 | 2 1/4 x 1 1/4 x 3/4 | 60c |
| 63 E 2234 | 3 | 2 1/4 x 2 x 1 1/4 | 81c |
| 63 E 2236 | 3 | 2 1/4 x 2 x 1 1/4 | 81c |

Tungsten Flashlight Lamps

Drawn wire Tungsten tipless lamps of best quality. Ship. wt., each 2 oz. 3 for. 54c

| Art. No. | Voltage | Fits | Dia. in. |
|-----------|---------|---|----------|
| 63 E 2301 | 1.5 | Single Cell Lantern | 1 1/4 |
| 63 E 2303 | 2.3 | 2 Cell 1 1/4 x 5 1/4 in. Tubular light | 3/4 |
| 63 E 2306 | 2.5 | 2 Cell 1 1/4 x 6 1/4 in. Tubular light | 7/8 |
| 63 E 2307 | 3 | 3-Volt Hand Lantern | 1 |
| 63 E 2311 | 3.8 | Three-Cell 1 1/4 x 9 in. Tubular light | 1 1/8 |
| 63 E 2313 | 6.2 | Five-Cell 1 1/4 x 13 1/2 in. Tubular light and 6-volt Hand Lanterns | 1 1/2 |

ELECTRIC MINIATURE MOTORS AND TRANSFORMERS

Special Type Transformer

Operates only when connected to alternating current line of 100 to 130 volts, 60 to 133 cycles.

63 E 1695—Special transformer 60-watt capacity. Produces from 2 1/2 to 27 1/2 volts, in 2 1/2-volt steps. An efficient, small, neat and compact device that will operate trains and motors, bells, buzzers and low voltage lamps. Equal in quality and efficiency to any transformer made. Fitted with 7-foot cord and attaching plug. Shipping weight, 4 1/2 lbs. Price. \$2.75

Standard Type Transformer

Operates only when connected to alternating current line of 100 to 125 volts, 60 to 133 cycles. 100 watt Transformer produces 1 1/2 to 24 volts, 150 watt 1 1/2 to 30 volts each, in steps of 1 1/2 volts each, and in addition can produce constant voltages, so that a number of different voltages can be drawn at the same time. Fitted with 7 ft. cord and attaching plug.

63 E 1697—Capacity, 100 watts. Ship. wt., 10 pounds. Price. \$4.95

63 E 1699—Capacity, 150 watts. Ship. wt., 13 pounds. Price. 6.50

Miniature Dynamo Motor

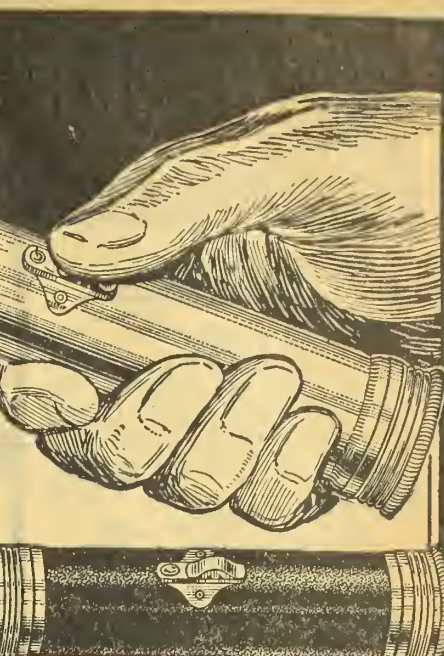
An experimental model for educational institutions or to teach the boy electricity. May be used either as a Dynamo or Motor. With this machine you can electroplate, charge small storage batteries (not automobile storage batteries), light lamps, run motors, trains of cars, induction coils, etc. A miniature duplicate of machines in actual commercial operation. This machine is not intended for long continuous running. For such a machine, refer to 63 E 202, Page 587. Safe maximum load, 6 volts, 4 amperes. Will light 34-candle power tungsten lamps. As a motor, runs well on 2, 3, or 4 dry cells. Height, 6 in. Ship. wt., 7 1/2 lbs. 63 E 1685—Knapp Type SS No. 129 Dynamo-Motor, Price, each. \$7.85

Electric Battery Motor

A high grade small motor with starting, stopping and reversing switch mounted on metal sub-base. Runs to full efficiency on 6-volt (4 dry cells) or on 110-volt alternating current through transformer, 3 1/4 in. high. Black enamel finish, nickel-plated trimmings. Electrically and mechanically this motor is well designed. Ship. \$5.95

63 E 1610—As described. Ship. \$5.95

63 E 1612—Motor only, without switch and gears. Price. \$5.15



Tubular Flashlight

Throws a bright light without a flare. Has double contact switch for flash or continuous light. Cannot short circuit. Patent shock absorber protects base of lamp from breakage caused by ordinary falls or jolts. Fiber case is made of fine black vulcanized fibre with heavy nickel-plated fittings. The nickel case is of brass in highly polished nickel finish. Complete with battery and Mazda Tungsten Lamp.

| Fibre Case | | Nickel-plated Case | | No. of Cells | Size in. | Wt. oz. |
|------------|--------|--------------------|--------|--------------|---------------|---------|
| Art. No. | Price | Art. No. | Price | | | |
| 63 E 2006 | \$1.87 | 63 E 2129 | \$1.05 | 2 | 1 1/4 x 5 1/4 | 16 |
| 63 E 2009 | 3.10 | 63 E 2049 | 1.30 | 2 | 1 1/4 x 6 1/4 | 18 |
| 63 E 2010 | 1.25 | 63 E 2052 | 1.60 | 3 | 1 1/4 x 9 | 27 |

ELECTRIC BELLS AND SUPPLIES

End Your Door Bell Troubles Buy a Transformer \$1.33

Operates only when connected to alternating current line of 100 to 120 volts 60 cycles. All the trouble and expense of replacing worn out batteries is eliminated by the use of a transformer. It is easily installed and will last indefinitely. This transformer produces three voltages, 6, 8, and 14 volts which can be obtained by attaching your wires to the binding posts on the base of the transformer. Attach it to your regular lighting wires and it transforms the current down so that it is suitable for door bells, buzzers, annunciators, door openers, etc. It will register on your meter only when bells are rung. Strong metal case, 1 1/4 x 2 1/4 x 3 1/4 in. Ship. wt., 2 lbs. Working capacity, 25 watts. 63 E 5921—Transformer only, without bell. Each. \$1.33

Electric Bells

Can be operated on one cell battery or from bell-ringing transformer. Japanned iron box and frame. Nickel-plated gong. Well constructed. Ship. wt., about 9 oz. 63 E 5945—2 1/2-inch gong. 59c Price, each. 60c

63 E 5947—3-inch gong. Price, each. 64c

63 E 5949—4-inch gong. Price. 74c

63 E 5950—2 1/2-inch gong bell to operate direct from 30-32-volt farm lighting plant current. Price. 70c

Iron Box Buzzer

63 E 5952—High grade buzzer, makes a comparatively low buzzing sound. Used where the loud ringing of a bell is not desirable. Ship. wt., 6 oz. Price, each. 55c

Miniature Base Porcelain Socket

63 E 2750—Can be screwed to any wood support. Weight, 10c Price, each. 10c

Flashlight lamps listed on this page have miniature bases and fit into these sockets.

Insulated Bell Wire

Insulated Wire. For wiring door bell systems, annunciators, miniature lights, etc. 63 E 5910—Single Conductor Annunciator Wire. Size, 18, about 150 ft. to the lb. Price, per pound. 55c

63 E 5962—Double Conductor Wire. Size, 18, about 150 ft. to the lb. More easily and quickly installed than single wire. Price, per pound. 57c

Push Button

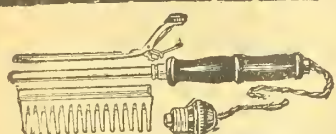
Nicely finished wood push button with composition center. Ship. wt., 1 oz. 63 E 5935—Each. \$.14 63 E 5936—Dozen. 1.48

Insulated Staples

63 E 5932—Insulated Needle Staple. Height, 3/4 in. Better and safer than plain staples for fastening wires. Ship. wt., 3 oz. Price, per package of 100. 20c



ELECTRIC CURLING IRONS



For use on 105 to 115-Volt Current.
To use the Curling Iron, simply remove emb. To use Waver Rod remove shield and comb. Makes beautiful lasting waves or curls. The heater and cord revolve together so that the cord does not kink when in use. The comb is aluminum. All other parts are beautifully nickel-plated. Handle is ebonized. Acts as a tonic for the hair and scalp—makes the hair luxuriant. Dries the hair quickly. Ship. wt., about 2 lbs.
63 E 1897—Complete, Price.....\$6.75



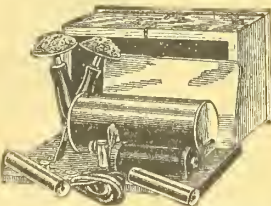
Electric Curling Iron and Waver Rod.
For 105 to 115-Volt Current.
A high grade curling iron equal in quality to any on the market regardless of price. Can be used as a waver rod by removing the shield. With this iron you can quickly and conveniently curl your hair without the disagreeable bother and danger of heating the iron over a flame. Very handy when traveling. Six-foot cord and plug for attaching to any ordinary light socket. 3/4 in. rod. Metal parts nickel-plated. Guaranteed heating element. Ship. wt., 2 lbs.
63 E 1894—Electric Curling Iron for 105 to 115-volt current. Price.....\$3.95



Electric Curling Iron similar to 63E1894 but with smaller rod and shield is not detachable. 5/16-inch rod. Metal parts nickel-plated. Guaranteed heating element. Six foot cord and plug. Ship. wt., 2 lbs.
63 E 1895—For use on 105 to 115-volt current. Price.....\$3.15

MEDICAL BATTERIES

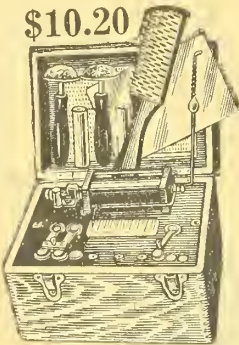
Single Cell Medical Battery



Complete with accessories and one dry battery. Ship. wt., 10 lbs. Has polished oak cabinet size, 5 3/4 x 8 1/4 x 4 1/4 in., with upper compartment for accessories and lower compartment for dry battery and mechanism. Intensity of current from mild to strong is smoothly controlled by a slide switch. One pair metallic hand electrodes, one pair conducting cords, one pair sponge electrodes with handles, one foot plate, one dry battery and hook on home treatment are included with the battery.
63 E 1502—Price.....\$6.45

Two-Cell Medical Battery

\$10.20



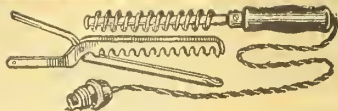
Two-cell medical battery complete with two dry batteries. One electric hair brush, one nickel-plated foot plate, two conducting cords, two sponge electrodes with two insulating wooden handles, two metal hand electrodes, and hook on home electro-medical treatment. A well constructed machine, so constructed that it will give a large variety of currents. Size of cabinet, 6 1/2 x 8 1/4 x 5 in. Ship. wt., 15 lbs.
463 E 475—Price.....\$10.20

Three-Cell Medical Battery



Three-cell medical battery complete with three batteries, one electric hair brush, one nickel-plated foot plate, two conducting cords, two sponge electrodes with two insulating wooden handles, two metal hand electrodes, and hook on home electro-medical treatment. The intensity of the current is smoothly regulated by an improved carbon rheostat. All metal parts finely nickel-plated. Cabinet is of fine polished oak. Size 7 3/4 x 10 1/4 x 9 in. Ship. wt. 18 lbs.
463 E 480—Price.....\$14.80

Make Your Own Marcel Wave



Instructions furnished will enable anyone after a few trials to marcel hair in a manner rivaling the work of professional hair dressers. Will pay for itself in a few applications after which your marcel will cost only a few cents for the current used. Ready for use at any time. No waiting for appointments. Gives the much desired double wave effect. Fitted with cord and plug for attaching to ordinary light socket. Guaranteed heating element. Ebonized handle. Metal parts nickel-plated and highly polished. Ship. wt., 2 lbs.
63 E 1898—Electric Hair Waver for 105 to 115-volt current. Price.....\$8.90

CHRISTMAS TREE OUTFITS

Christmas Tree Electric Lights

THESE lights are not only used for Christmas tree decorations but are being used extensively to light up lawns or the home on special festive occasions where unusual lighting effects are desired. They give different colored lights to give a very pleasant effect and add joy to the entire occasion. The outfits we handle are of the best quality. All lamps are of the drawn wire tungsten type and give a bright, clear light. Every bulb is carefully examined and we ship only bulbs with straight, well centered filaments. Easily and quickly put in place. Will burn in any position. All outfits have lamps of assorted colors about 2 candle power. Long attaching cord and plug for attaching to light socket.

Special Feature
All our Christmas tree lighting outfits have sockets provided with the new attaching clips so that the lights can be easily and securely fastened to the branches of the tree. Ship. wt., 2 to 7 lbs.

For use on lighting current of 105 to 115 volts.
63 E 1621—8-light outfit. Price.....\$3.25
63 E 1622—16-light outfit. Price.....\$6.50
63 E 1623—24-light outfit. Price.....\$9.75
63 E 1624—32-light outfit. Price.....\$13.00

For use on Farm Electric Lighting Plant, Current of 30-32 volts. Regular Style Outfit.
63 E 1632—8-light outfit. Price.....3.25
63 E 1633—16-light outfit. Price.....6.50
63 E 1634—24-light outfit. Price.....9.75
63 E 1635—32-light outfit. Price.....13.00

EXTRA LAMPS FOR CHRISTMAS TREE LIGHTING OUTFITS

Each box contains four lamps, one clear, one blue, one red and one green. We suggest that you order an extra box with every outfit and avoid the disappointment of being without your lights because of a burnt out lamp (bulb). Ship. wt., per box of four, 4 oz.

63 E 1652—15-volt lamps for use on the usual city lighting current of 105 to 110-volts. Price, per box of 4 lamps.....95c

63 E 1654—1-volt lamps for use on 30-32 volt farm lighting plant current 15 or 16-cell storage battery plants or dry battery outfits. Price, per box of 4 lamps.....95c

SEWING MACHINE MOTOR

Hamilton Beach Home Motor

A light, compact, convenient labor saver that is always ready to work for you. Attach it in a moment to your sewing machine and it will run your machine fast or slow. Requires no screws, bolts or clamps to fasten to machine. Simply place this little motor under the hand wheel of any sewing machine, new or old (except parlor cabinet models). The motor immediately converts it into electrically operated labor saver. Enables you to do much more and better sewing without the drudgery of treading a sewing machine all day long.

63 E 6055—Hamilton Beach Sew-E-Z Motor, complete with foot control, cord and attaching plug for use on city lighting current of 105 to 120 volts. Ship. wt., 13 lbs. Price.....\$16.75

63 E 6056—Same as above but for use on 30-32 volt farm electric plant current. Ship. wt., 12 lbs. Price.....\$18.00

63 E 6061—Combination Emery Wheel and Buffer for home motor. Enables you to keep your cutlery sharp and silverware polished, with very little trouble. Price.....\$1.40

63 E 6059—Fan attachment for home motor, including fan guard and blades. Converts it in a moment into a highly efficient, 8-inch electric fan. Price, complete.....\$2.60

63 E 6062—Combination Cream Whipper, Egg Beater and Salad Mixer for attaching to Home Motor. Price.....\$4.70

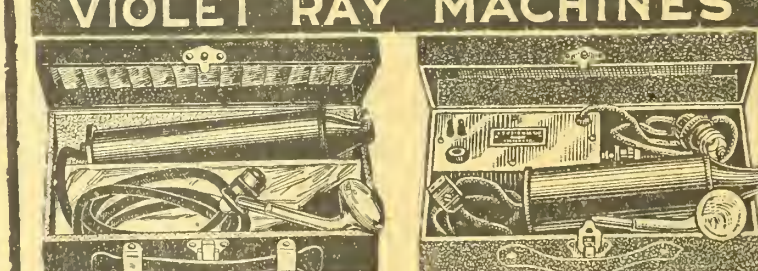
Ship. wt. of attachments, about 2 lbs. each.

Made of No. 18 Twisted Pair Cotton Lamp Cord. Has regular Edison base key socket wired on one end and separable black composition attaching plug on the other. Ship. wt., about 10 oz.

63 E 4686—6-ft. Extension Cord complete with socket and attaching plug. Each.....\$.95

63 E 4688—10-ft. Extension Cord complete. Each.....1.05

VIOLET RAY MACHINES



Used to apply the high frequency Violet Ray Electric Currents. Intended for home use or for physicians, dentists, beauty parlors and barbers. Electrode furnished for facial and body treatments or for any surface application. 7-foot cord with plug for attaching to light socket. Very easy to operate. Perfectly safe. We recommend this outfit to anyone wanting a Violet Ray machine of the highest grade. Ship. wt., 6 lbs.
63 E 1555—For use on 105 to 115-volt current. Price complete with carrying case.....\$22.50
63 E 1551—Comb-Rake Electrode. Used for all scalp treatments. Stimulates the hair cells. Price.....\$2.00

The demand for a low priced Violet Ray machine has produced this instrument. Although very low in price it is fully guaranteed and will give service equal to many machines on the market selling at more than double our price. Very easy to operate. Complete instructions furnished with each machine. Perfectly safe. Electrode furnished which can be used for facial and body treatment or for any surface application. 7-foot cord with plug for attaching to light socket. All parts fit into compact carrying case, size, 10x5x3 inches. Ship. wt., 4 lbs.
63 E 1553—For 105 to 115-volt current. Price.....\$9.80

ELECTRIC VIBRATORS

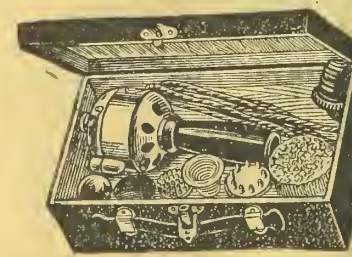
Star Electric Vibrator

63 E 1577
Electric Vibrator for use on alternating current only. Gives only 105 to 115 volts. 60 to 133 cycles. Price.....\$4.45
Recommended for home massage use. Everyone should keep one of these handy 115-vibrators on the toilet table or in the medicine cabinet. It is a dependable vibrator with different applicators for facial, scalp and body treatments. Complete with cord and plug for attaching to any convenient light socket. Ship. wt., 3 lbs.



63 E 1570—Electric Vibrator for use on 110 volt alternating current only. Price.....\$10.

The motor runs smoothly and quietly. Vibrator is light enough so that it can be easily held in the hand. Recommended for home use. Different applicators are included. Supplied with long connecting cord, and attaching plug. Complete instruction book supplied. Ship. wt., 5 lbs.

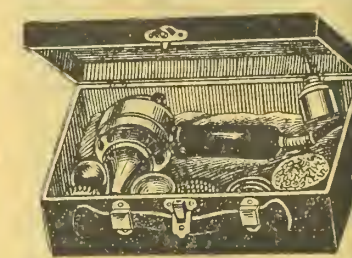


Fine Quality Vibrator

63 E 1578—Electric Vibrator for use on 110-volt power current. Price.....\$15.

63 E 1579—Same for 30-32 volt farm electric plant current. Price.....\$15.

Designed for general use and constructed to meet every requirement of a first-class vibrator. It gives a very vigorous vibration, suitable for all kinds of body massages. Starting switch, speed regulator. Maximum speed about 4 r. p. m. Six applicators and complete direct supplied. Equipped with attaching cord and plug. Packed in fine case. Ship. wt., 7 lbs.



Hamilton Beach Type C Vibrator

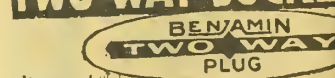
63 E 1582—For use on 110-volt current. Price, complete.....\$25.

63 E 1583—For 30 to 32-volt farm electric plant current. Price.....\$26

Best grade vibrator made. Recommended for the use of physicians, barbers, hospitals, parlors, and Turkish Bath establishments. Adapted to stand continuous usage. Six applicators are included in the outfit. Packed in hand-satin-lined, finely-covered, carrying case. With 6-ft. cord and attaching plug. Ship. wt., 7 lbs.



TWO WAY SOCKET



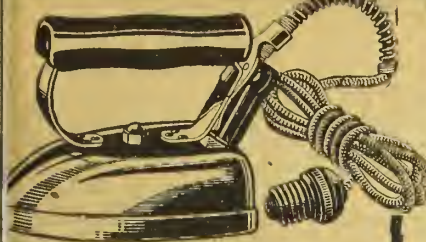
Screws into regular Edison Base light socket. Gives the socket two or three outlets instead of one. Saves the bother of removing the light to attach whatever appliance you may wish to use. Ship. wt., each 7 to 10 lbs.
63 E 4485—Benjamin 2-light cluster. Price, each.....\$1.00
63 E 4487—Benjamin 3-light cluster. Price, each.....\$1.50
63 E 4488—Benjamin 2-light cluster. Type as 63E4485 but has pull chain for light on and off. Each.....\$1.00
63 E 4484—Shade holder for above cluster. Price, each.....\$1.00

ELECTRICAL COOKING AND HEATING DEVICES

CONVENIENT COMFORTABLE

ELECTRIC IRONS

ELECTRIC STOVES



A Quality Iron at a Low Price
The special low prices at which we are offering these irons is much below their present market value. They will give as good service as any irons on the market, regardless of price. They are fully warranted and we will promptly replace any that are unsatisfactory. Perfectly balanced. Heavily nickel-plated and highly polished. Very efficient heating element. Complete with stand, 1 ft. wax, six-foot attaching cord and plug. Net weight, 6 lbs. Ship. wt., 8 lbs.

E 1801—Electric iron for use on 120 volt current. Specially priced at **\$3.95**

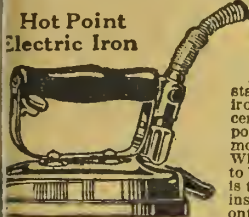


Four-Heat Iron.
A Heat for Every Purpose

Change from one heat to another is made by simply moving attachment plug. For large or damp use, use high heat, for ordinary work medium heat and for light work either the medium or low heat. Guaranteed. Heavily nickel-plated. Comes with 6-ft. cord and attaching plug. Uses 400, 175 or 120 watts current. This iron will stand to have many advantages over single heat irons and we can especially recommend it as high in value and very reasonably priced. Net weight, 5 lbs. Ship. wt., 8 lbs.

E 1810—For current of 105 to 120 volts. Price.....**\$5.80**

E 1811—For farm lighting plant current of 32 volts. Price.....**\$6.35**



Hot Point Electric Iron **\$6.95**

A well known standard electric iron. Heat is concentrated at the point where it is most needed. When ironing is to be shifted, iron is tipped on end instead of lifting onto a stand. Heating element guaranteed. Top, sides and bottom are nickel-plated. Ebonized wood handle. Six-foot cord and attaching plug. Uses 575 watts current. Weight, 6 lbs. Ship. wt., 8 lbs.

E 1835—For 110-volt current.....**\$6.95**

E 1836—30 to 32 volt Farm Electric Plant current.....**\$7.45**

A Quality Electric Iron



Finest quality iron. Bottom sides and nickel-plated. Fully guaranteed. Cord is permanently attached to iron on both 110 and 32 volt eliminating cord troubles. Uses 550 watts current. Net wt., 6 lbs. Ship. wt., 8 lbs.

E 1809—For 108 to 115 volt current. Supplied with both tip-up rest and stand. Indicating switch in cord to turn current off and on. **\$7.45**

E 1839—For Farm Electric Plant Current of 32 volts. Equipped with tip-up rest but no stand or switch in cord. Price.....**\$7.45**



Carry a Travelers' Iron with You on Your Trips

For 108 to 115 volt current. An exceedingly useful article. Very desirable for traveling, ribbons, laces and other delicate materials. Cannot afford to be without one when you are away. 6 ft. of cord and attachment plug with iron. Rests on end when not in use. No required. Heating element guaranteed. Net wt., 5 lbs. Ship. wt., 5 lbs. Can be packed in case. Price.....**\$4.95**

E 1815—Price.....**\$4.95**

ATTACHING CORDS

Fits all makes of Electric Irons, Toasters, and other electrical heating devices having a detachable cord. Consists of seven feet of heater cord with separate plug on one end for attaching to socket and plug on the other end for attaching to heating device. Ship. wt., 1 lb.

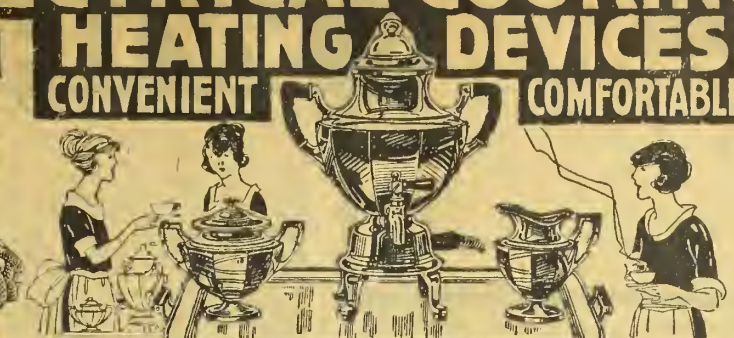
E 63 E 4682—Complete as illustrated with indicating switch in cord. Each **\$1.95**

E 63 E 4684—Attaching cord complete without switch. **\$1.30**

E 4671—Plug only for attaching to heating device. Ship. wt., 4 oz. Price **42c**

E 4512—Switch only for controlling current. Dark and light buttons tell at a glance whether the current is on or off. Use one of these on every heating appliance and prevent troubles. Ship. wt., 5 oz.

.....**48c**

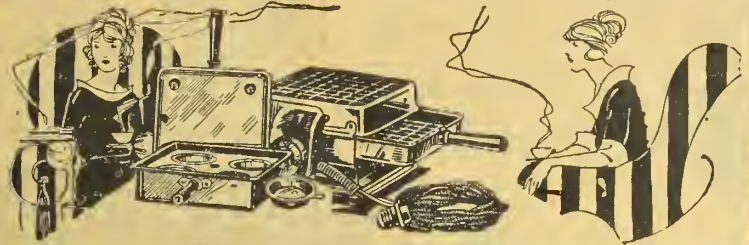


This Quality Percolator Set Makes a Dandy Gift

Consists of 10-cup Electric Percolator; Tray, size 12x16 inches; Sugar and Creamer. Percolator is made entirely of copper, nickel-plated and polished. Artistically shaped mahogany handles on percolator and tray. Feet of percolator are fibre tipped. Tray, Sugar and Creamer are nickel-plated and polished. Inside of percolator and Sugar have a double lined finish that will not tarnish. Creamer is gold lined. Percolator is equipped with 6-ft. cord and plug. Uses 400 watts current. Ship. wt., complete set, 12 1/2 lbs.

463 E 705—4-piece Percolator Set. Price, complete.....**\$39.50**

463 E 706—Percolator only. Price.....**19.75**

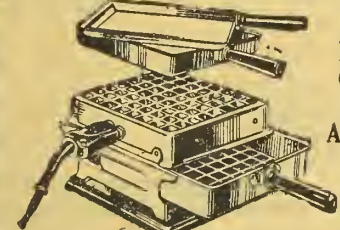


Cooks a Meal Right on the Table

A complete practical electric stove that can be used right on your finest table cloth. Has square size 7x7 in. surface, over which clean, uniform electric heat is distributed. The most convenient appliance to grill eggs, bacon, steak, ham, and other meats; to bake muffins, biscuits, potatoes, cup cakes or cookies; to steam rice, breakfast foods, cup custards, eggs, etc.; to boil coffee, toast bread, four slices at one time, and many other uses. Has convenient assortment of aluminum non-rusting pans, including cup cake pans, to meet all requirements. Metal parts nickel-plated. Switch for regulating heat; 6 ft. attaching cord. Uses 660 watts on high, 330 on medium, 165 on low. Ship. wt., 3 lbs.

463 E 700—For 108 to 120 volt current.....**\$12.15**

463 E 702—For 30 to 32 volt farm electric plant. Price.....**12.65**

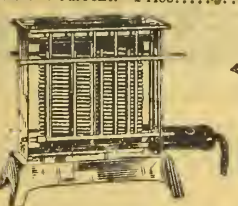


Low Priced Dependable Electric Grill

A clean uniform heat is distributed evenly over the 7x7-in. top cooking surface. A fast, economical cooker. Saves the tedious, tiring work of standing over a stove. A very convenient device to grill bacon, eggs, pork chops, ham and steaks, to toast bread—four pieces at one time and to boil your coffee. With 6-ft. cord and plug. Uses 600 watts current. Ship. wt., 7 lbs.

63 E 1864—For 108 to 120 volt current.....**\$9.95**

63 E 1865—For 30-32 volt farm electric current. Price.....**10.45**



Low Priced Dependable Electric Toaster

Very attractive in appearance. Nickel-plated and highly polished. Toasts two slices of bread at one time. Heating element is so distributed as to insure uniform toasting. The toast holders are held in place by springs. Uses 500 watts current. Fitted with 6-ft. cord and attaching plug. Ship. wt., 3 lbs.

63 E 1850—For use on 108 to 120 volt current. Price.....**\$4.95**

.....**\$4.95**



Handy, Useful Electric Percolator

A fine quality percolator in an attractive design. Capacity, 8 cups. Body is made of polished aluminum with ebonized wood handle. Attaching cord to lighting socket and in a few minutes you have delicious, clear, steaming coffee. Fitted with 6-ft. cord and attaching plug. Uses 400 watts current. Ship. wt., 3 1/2 lbs.

463 E 710—For use on 108 to 120 volt current. Price.....**\$10.80**

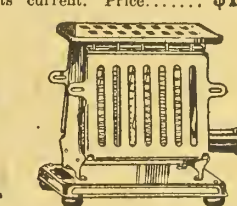
.....**\$10.80**



The Handy on the Table Electric Round Grill

Extra fine quality, heavy weight. You can prepare an entire breakfast on the dining table. While the eggs are poaching or boiling in a pan above the coils, the bacon is sizzling underneath. Crisp, hot, golden brown toast can be prepared either above or below the radiant coils. Supplied with three cooking pans, diam. 8 1/2 in., depth, 2 1/2 and 3 1/2 in. Deep pan is furnished with a grid for broiling and toasting. Polished nickel finish. Three heats, using 137, 275 and 550 watts current. Ship. wt., 7 lbs.

63 E 1870—For use on 108 to 120 volts current. Price.....**\$12.60**



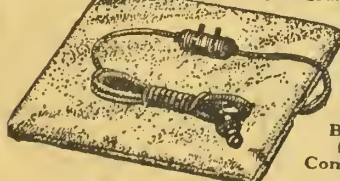
The Easy to Use Flip-Flop Toaster

Fine quality toaster. Turns toast over automatically by dropping door down. You've never tasted real toast until you have made it by this up-to-date method. Fully nickel-plated and equipped with 6 ft. of cord fitted with push switch and attachment plug. Uses 500 watts current. Ship. wt., 3 lbs.

63 E 1852—For 108 to 120 volt current. Price.....**\$6.90**

63 E 1851—30-32 volt farm Electric Plant Current. Price.....**\$7.40**

HEATING PADS



High Grade Heating Pad

For use on 105 to 115-volt current. Covered with soft eiderdown. Will maintain constant unvarying heat. When the proper temperature is reached the thermostat automatically shuts off the current, alternating between off and on while pad is in use. Uses less current than an ordinary electric lamp. Size, 12x14 in. Ship. wt., 3 lbs.

63 E 1567—Equipped with three-heat switch for controlling heat as desired. 10 ft. cord and attaching plug. Price **\$8.90**

Heating Pads are Far Superior to Hot Water Bottles for Comfort



A Good Heating Pad Priced Low

For use on 105 to 115-volt current. Far superior to the hot water bottle for all dry applications of heat to the body. Maintains an absolute even degree of heat and will not overheat. Equipped with a three-heat switch so that heat can be regulated as desired. Covered with soft eiderdown. Size, 12x15 in. Ship. wt., 3 lbs.

63 E 1560—Equipped with long cord, attaching plug and 3-heat control switch. Price.....**\$5.95**

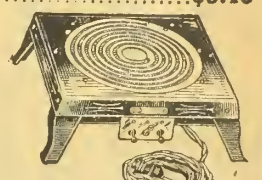


The Combination Toaster Range

A sturdy electric stove. Makes toast, two slices at one time, grills meat, cooks, fries, boils without heating up the room. A very useful electrical cooking device at a very low price. Top size, 8 1/2 x 14 in. Metal parts nickel-plated and polished. Complete with 6-ft. cord and plug. Uses 550 watts current. Ship. wt., 3 lbs.

63 E 1855—For 108 to 120 volt current. Price.....**\$3.15**

Single Burner Hot Plate



Single burner hot plate. Will cook anything that can be cooked on any regular stove. Very convenient as it can be attached to any lamp socket. Top size, 10 1/2 x 11 in. Has 1000 watt burner divided into 3 independent heating elements, each controlled by a switch. Can be operated on 360, 720 or 1000 watts current. Heat can be confined, to center, intermediate or outside portion of burner to give most efficient results with utensil used. Polished black steel. Fitted with a 6-ft. cord and attaching plug. Ship. wt., 9 lbs.

463 E 751—For use on 108 to 120 volt current. Price.....**\$13.50**

Double Hot Plate

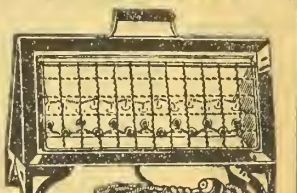


Same style as 463 E 751 but with two 1000 watt burners each controlled by switch. Top size, 11x20 1/2 in. Requires special circuit of size 12 wire. Cannot be attached to lamp socket. Ship. wt., 15 lbs.

463 E 753—For 108 to 120 volt current. Price.....**\$27.00**

HEATING APPLIANCES

Portable Radiator. The Best Value We Have Ever Offered



A light, portable radiator which can be attached to any convenient lamp socket. Will remove the chill from small rooms, bathrooms, nurseries, small offices, etc. Height, 12 in. Length, 16 1/2 in. Width, 6 1/2 in. Finish, dull black. Fitted with cord and attaching plug. Uses 600 watts current. Ship. wt., 8 lbs.

463 E 760—For use on 108 to 120 volt current. Specially priced at.....**\$5.80**

Handy Portable Radiant Heater

Will remove the chill from small rooms, bathrooms, dressing rooms, nurseries and offices. Parabolic reflector radiates a warm cheerful glow. Fitted with a 9-ft. cord and attachment plug. Excellent for drying the hair after a shampoo. Switch in cord provides handy means for controlling current. Uses 615 watts current. Ht., 16 in. Ship. wt., 7 lbs.

463 E 730—For use on 108 to 120 volt current. Price.....**\$10.40**



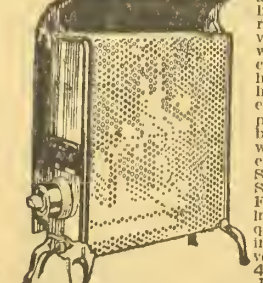
Round Portable Heater

Handy for the bathroom, bedrooms, other small rooms, garages, etc. Will remove the chill quickly. Nine feet of cord with attachment plug. Ht., 7 1/2 in. Diam. of base, 12 in. Ship. wt., about 8 lbs. Uses 660 watts current.

463 E 725—For use on 108 to 120 volt current. Price.....**\$6.75**

.....**\$6.75**

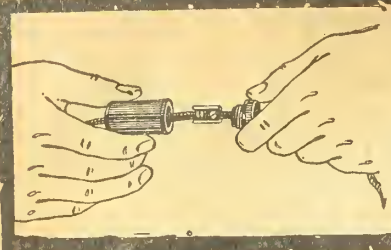
High Quality Electric Radiator



A portable radiator convenient for bath-rooms, office rooms, etc. Provided with deflector which greatly increases efficiency of heater by radiating heat where wanted. Finished in polished nickel and blue steel. Fitted with switch to turn current on and off. Size, 16x14x4 in. Ship. wt., 16 lbs. Fitted with attaching cord but requires special wiring. For 105 to 120 volt current.

463 E 720—1,000 watt size.....**\$14.60**

463 E 722—2,000 watt.....**25.90**



Handy-Quick-Simple Wire Connectors

These connectors have eliminated the most objectionable part of an electric wiring installation—the soldering and taping of joints. With these connectors anyone can very quickly and easily make an Underwriters' Approved electrical connection without the use of solder or tape. A screw driver is the only tool required. We recommend that these connectors be used when any wiring is being done as they save time, money and material. Two connectors must be used at every splice as a connector will take only one wire. Can be used only for connecting sizes 12, 14 or smaller wires. Ship. wt., 2 ozs. \$.12 Ten for..... 1.05

Metal Wall Box for Loom or Knob and Tube Wiring

One-gang box is used where one switch or receptacle is installed. Two-gang box is used where two switches or receptacles are installed together, etc. Used with flexible non-metallic conduit, "looms" and on knob and tube wiring systems. Depth, 2 1/4 in. Knockout holes, diam. 3/4 in. for 1/2 in. loom. Takes any standard push switch or wall receptacle. Wt., per gang about 11 oz.



| Article Number | Number Gangs | Price Each | For 10 |
|----------------|--------------|------------|--------|
| 63 E 3670 | One | 15c | \$1.39 |
| 63 E 3672 | Two | 28c | 2.69 |
| 63 E 3674 | Three | 39c | 3.79 |

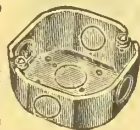
Wall Box for Conduit or Armored Cable

Takes any of the standard push switches and wall receptacles. Has knockout holes for 1/2 in. conduit and armored cable (B. X.). Any number of gangs required can be made. Length, 3 in.; width, 2 in.; depth, 2 1/4 in. Wt. about 14 oz. 63 E 3680—Single gang..... 19c Ten for..... \$1.79



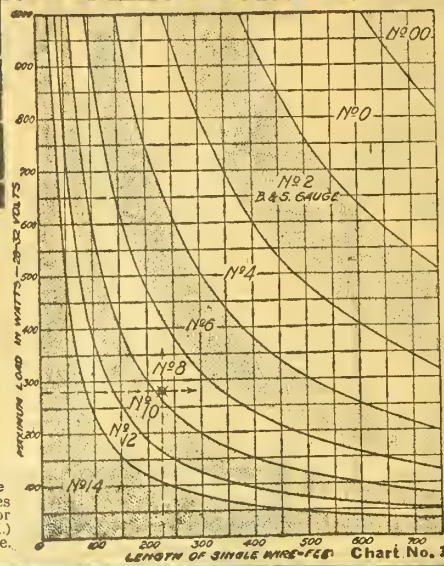
Octagon Outlet Boxes

Of heavy stamped sheet metal with knockouts for 1/2-inch conduit or armored cable. Octagon shape makes them easy to install and permits of a better job. Have lugs and screws for covers.



| Article Number | Diam. | Depth | Wt. | Price Each | Ten For |
|----------------|-------|-------|-------|------------|---------|
| 63 E 3690 | 3 1/4 | 1 1/4 | 6 oz. | 15c | \$1.38 |
| 63 E 3695 | 4 | 1 1/2 | 7 oz. | 19c | 1.73 |

APPROVED WIRING



Do Your Own Wiring

When wiring your house or buildings for electricity, it is important that you choose wire enough to prevent a large voltage drop in voltage would affect the brilliancy of the lights and the operation of the motors. By referring to the charts on this page you will be able to determine accurately what size wire you should use. It is advisable to get wire that is large, for you will get less voltage as you increase the size of the wire. You need to know the distance and the maximum amount of power in watts to be carried.

As shown by the charts, watts are represented by vertical distances and the of a single wire by horizontal distance. Use chart No. 1 when figuring wire you should use to carry 28-32 volt lighting plant current. If you estimate you will have a load of 280 watts which to be carried to a socket 110 ft. from the battery, the total distance the electricity to travel is 220 ft. since there must be two wires leading to every fixture power socket. As shown by the charts, two lines indicating 280 watts and 220 ft. in the space marked No. 8 indicate No. 8 wire is required.

For a load of 400 watts that is carried to lights or motors 150 ft. from the battery or a total of 300 ft. for both No. 6 wire is required. In like manner you will be able to determine the size of wire required for any wattage and distance you will need.

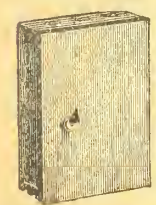
Safety Entrance Switch



Have you ever had to turn on the current in the dark? If you have, you know the discomfort of feeling inside the box for the switch handle. This switch has a lever on the outside of the box for turning the current on or off. Can be locked with a padlock, making it impossible to open the box and touch any live parts. No danger of a shock under any circumstances. Two-pole 30-ampere 125-volt switch. 16 gauge, 9x4 1/2 x 1 1/2 box. Position of lever shows at a glance whether current is on or off. Shipping wt., 6 lbs.

63 E 3565—Price..... \$1.85

Steel Cut-Out and Switch Box



An approved box is required for every cut-out switch or fused branch block. These boxes are National Electric Code Standard and meet all requirements. They are made of enameled steel, with electro welded seams. Covers fit tight and open all the way. Boxes are strong, well made and neat in appearance. Are almost fire, water and dust proof. Have sufficient knock-outs for making all connections.

| Article Number | Width In. | Depth In. | Height In. | Wt. Lbs. | Price Each |
|----------------|-----------|-----------|------------|----------|------------|
| 63 E 3550 | 4 1/2 | 9 | 3 1/2 | 3 | \$5.58 |
| 63 E 3552 | 6 | 8 | 4 | 3 3/4 | 6.54 |
| 63 E 3554 | 8 | 10 | 4 | 5 1/4 | 10.20 |
| 63 E 3556 | 10 | 12 | 4 | 7 1/2 | 13.37 |
| 63 E 3558 | 12 | 14 | 4 | 10 | 16.54 |
| 63 E 3560 | 14 | 16 | 4 | 11 1/2 | 19.71 |
| 63 E 3562 | 16 | 18 | 4 | 13 1/4 | 22.88 |
| 63 E 3564 | 18 | 20 | 4 | 15 1/2 | 26.05 |
| 63 E 3566 | 20 | 22 | 4 | 17 1/4 | 29.22 |
| 63 E 3568 | 22 | 24 | 4 | 19 1/2 | 32.39 |

DEPENDABLE SWITCHES AND RECEPTACLES

Push Button Flush Switch



High grade switches. Standard shallow type. Fit all standard wall boxes. Depth, 1 1/2 in. Ship. wt., 6 oz. For 125-volt, 10-ampere current; 250 volt, 5 ampere current.

63 E 4160—Single Pole. Price, each..... \$.34 Ten for..... 3.10

63 E 4162—Double Pole (fits a single gang box), breaks the circuit in both wires. Price, each..... 53c Ten for..... \$4.95

63 E 4164—Three Way. Two switches installed at separate places are wired together to control the same light or set of lights. Either switch will turn light off or on independently of the other. Price, each..... \$.52 Ten for..... 4.90

63 E 4166—Four point. Each..... 1.80

Face Plates for Push Button Flush Switches

Made of heavy solid brass. The equal in service to any plate, regardless of price. Fit all standard Push Button Flush Switches. Use two or three-gang plate only where two or three switches are to be installed side by side. Ship. wt., per gang, about 2 oz.

| Article Number | Number Gangs | Finish | Price Each |
|----------------|--------------|----------|------------|
| 63 E 4175 | 1 | Brush | 12c |
| 63 E 4177 | 2 | Brush | 24c |
| 63 E 4179 | 3 | Brush | 36c |
| 63 E 4181 | 1 | Oxidized | 16c |
| 63 E 4183 | 2 | Oxidized | 32c |
| 63 E 4185 | 3 | Oxidized | 48c |
| 63 E 4187 | 1 | Nickel | 16c |
| 63 E 4189 | 2 | Nickel | 32c |
| 63 E 4191 | 3 | Plated | 48c |

Baseboard Receptacle



Adapted to take any standard Edison Base Screw Attachment Plug. This receptacle is useful for connecting electric irons, toasters, table lamps, etc., to current. When not in use, lid is closed, making plate flush with wall or board. Price includes receptacle and plate. Ship. wt., 10 oz.

| Article Number | Finish of Plate | Price Each |
|----------------|-----------------|------------|
| 63 E 4202 | Brush Brass | 40c |
| 63 E 4204 | Ox. Copper | 52c |
| 63 E 4206 | Nickel | 52c |

63 E 4201—Single Edison Base Receptacle only, without Base Plate. Each..... 19c

Round Head Blue Iron Wood Screw

Ship. wt. per gross, 2 1/2 lbs. and 3 lbs. 63 E 3952—For use with cleats and solid knobs. Length, 1 1/2 in. Size 11. Price, per doz..... 8c Per gross..... 80c

63 E 3953—For split knobs. Length, 3 in. Size 11. Per doz 12c Per gross..... \$1.20

Flat Head Bright Steel Wood Screw

Ship. wt. per gross, 1 to 2 1/2 lbs. 63 E 3956—For wall switch boxes. Length, 1 1/2 in. Size 8. Per gross..... 27c 63 E 3954—For conduit straps, cut-out boxes, outlet boxes and slate base switches. Length, 1 in. Size 8. Per gross..... 32c 63 E 3957—For wood moulding, rosettes, snap switches without bases. Length, 1 1/2 in. Size 6. Price, per gross..... 35c 63 E 3959—For porcelain ceiling huttons, porcelain base switches, porcelain cut-out boxes. Length, 1 1/2 in. Size 8. Price, per gross..... 43c 63 E 3958—For snap switches with switch bases. Length, 2 1/4 in. Size 6. Per gross..... 53c

Snap (Turn Button) Switches and Switch Bases



A high grade switch Approved by the National Electric Code Standard. The Three-way switches can be arranged to control the same light from two different places. In some localities sub-bases are required by the Underwriters. We list switches both with and without sub-bases, but recommend the bases as they cost little, make a better job and offer additional protection. Ship. wt., 4 oz.

125-volt 5-amp. or 250-volt 3-amp. 125-volt 10-amp. or 250-volt 5-amp.

| Article Number | Price Each | Article Number | Price Each |
|----------------|------------|----------------|------------|
| 63 E 4102 | 34c | 63 E 4114 | 58c |
| 63 E 4103 | 39c | 63 E 4115 | 65c |
| 63 E 4104 | 39c | 63 E 4116 | 58c |
| 63 E 4105 | 44c | 63 E 4117 | 65c |
| 63 E 4110 | 58c | 63 E 4118 | 90c |
| 63 E 4111 | 63c | 63 E 4119 | 97c |

Standard Flush Receptacles

Take any make of standard attachment plug caps. Devices can be quickly connected. Fit same metal wall boxes as flush switches. Complete with brass plate. Ship. wt., each 12 oz.

63 E 4221—Single Receptacle. Price..... 66c 63 E 4225—Double Receptacle. Price..... 95c 63 E 4673—Composition attachment plug cap. Each..... 17c



Combination Plate

With this plate you can install a push button switch and flush receptacle in a two-gang box. 63 E 4202. Brass in brush satin finish. Ship. wt., 4 oz. Uses 63 E 4201 receptacle listed above. 63 E 4195—Each..... 85c

Metal Lamp Shades

Best quality finely finished sheet steel lamp shades. White enameled inside. Green enameled outside. Wt. each, 4 to 8 oz. All have 2 1/4 in. flitters.

| Article Number | Diam. In. | Style | Price Each | Price Dozen |
|----------------|-----------|--------------|------------|-------------|
| 63 E 4702 | 8 | Deep Cone | 22c | \$2.40 |
| 63 E 4703 | 10 | Deep Cone | 28c | 3.05 |
| 63 E 4707 | 10 | Shallow Cone | 25c | 2.70 |
| 63 E 4710 | 12 | Flat | 24c | 2.70 |
| 63 E 4713 | 12 | Flat | 40c | 4.45 |

Porcelain Lined Reflectors

Best quality flat type reflector for Nitrogen Type "C" Lamps. Green porcelain enamel outside and non-discoloring white porcelain enamel inside. Ship. wt., 4 to 6 lbs.

| Article Number | Diam. In. | Flitter | Lamp size watts | Price Each |
|----------------|-----------|-----------|-----------------|------------|
| 63 E 4770 | 10 | 2 1/4 in. | 25 | \$.88 |
| 63 E 4772 | 12 | 2 1/4 in. | 40 | 1.11 |
| 63 E 4774 | 14 | 2 1/4 in. | 60 | 1.33 |
| 63 E 4776 | 16 | 3 1/4 in. | 100 | 1.88 |

UNDERWRITERS APPROVED WIRE

Single Braid, New Code Rubber Covered Wire

Solid conductor copper wire, insulated with rubber compound over which is one cotton saturated braid. Recommended for any open wiring on cleats, tubes or knobs, and for loom and moulding wiring. Each unbroken coil of 500 ft. bears Underwriters' inspection tag. Ship. wt., 3 to 18 1/2 lbs. per 100 ft., according to size. Sold only in lengths listed.

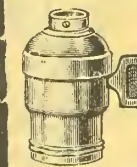
| Article Number | Size | Price For 100 Ft. | Price For 25 Ft. | Price For 10 Ft. | Price For 500 Ft. |
|----------------|------|-------------------|------------------|------------------|-------------------|
| 63 E 3015 | 14 | \$.32 | \$1.17 | \$4.95 | |
| 63 E 3020 | 12 | .40 | 1.47 | 6.73 | |
| 63 E 3025 | 10 | .56 | 1.98 | 9.33 | |
| 63 E 3030 | 8 | .73 | 2.58 | 12.50 | |
| 63 E 3035 | 6 | 1.17 | 4.23 | 19.05 | |
| 63 E 3040 | 4 | 1.73 | 6.35 | 28.50 | |

Duplex New Code Rubber Covered Wire

Consists of two solid conductors, each insulated with rubber compound over which is one saturated cotton braid. Used for wiring in metallic conduit. Ship. wt., 6 to 12 lbs. per 100 ft., according to size. Sold only in lengths listed.

| Article Number | Size | Price For 100 Ft. | Price For 25 Ft. | Price For 10 Ft. | Price For 500 Ft. |
|----------------|------|-------------------|------------------|------------------|-------------------|
| 63 E 3080 | 14 | \$.77 | \$2.83 | \$12.95 | |
| 63 E 3085 | 12 | .99 | 3.56 | 16.65 | |
| 63 E 3090 | 10 | 1.29 | 4.75 | 21.75 | |

BRASS SOCKETS



National Electric Code Standard Brass shell fiber lined sockets. Take any Edison base lamp. The brands we carry are of the best quality of their respective classes. Meet all Underwriters' requirements. Ship. wt., each 3 oz.

Key Sockets 1/2-inch cap. Have key to turn current on and off. New Wrinkle Brand. 63 E 4501—Brush Brass Finish. Price, each..... 35c 63 E 4503—Polished Nickel Finish. Price, each..... 46c 63 E 4505—Oxidized Copper Finish. Price, each..... 46c Independent Brand. 63 E 4511—Brush Brass Finish. Price, each..... 31c

Pull Chain Sockets 1/2-inch cap. Have 8-inch chains. Most convenient type where socket is out of reach. New Wrinkle Brand. 63 E 4535—Brush Brass Finish. Price, each..... 54c 63 E 4537—Oxidized Copper Finish. Price, each..... 67c 63 E 4539—Polished Nickel Finish. Price, each..... 67c

Pendant Cap Sockets For use on drop cords only. Have key to turn current on and off. Composition bushing in cap. New Wrinkle Brand. 63 E 4494—Brush Brass Finish. Price, each..... 35c Independent Brand. 63 E 4495—Brush Brass Finish. Price, each..... 31c

Pull Chain Extension 63 E 4489—Screw this device into any regular key or keyless socket, and you thereby convert it into a handy pull chain socket. Can be attached to any fixture, and the shade moved down and fastened to the extension. Finish of shell is brush (satin) brass. Chain, 8 inches long. Weight, each 5 oz. Each..... 77c

Weather-Proof Copper Wire

For use on outside work only. Wire weather better than rubber covered wire. Consists of solid copper wire, covered with layers of cotton braid, saturated with weather insulating material. Ship. wt., 2 1/2 to 10 lbs. per 100 ft., according to size. Sold only in lengths listed.

| Article Number | Size | Price For 100 Ft. | Price For 25 Ft. | Price For 10 Ft. |
|----------------|------|-------------------|------------------|------------------|
| 63 E 3331 | 25 | 14 | \$.27 | \$.98 |
| 63 E 3332 | 12 | 10 | .33 | 1.22 |
| 63 E 3333 | 10 | 8 | .45 | 1.67 |
| 63 E 3334 | 8 | 6 | .62 | 2.25 |
| 63 E 3335 | 6 | 4 | .82 | 3.07 |
| 63 E 3336 | 4 | 3 | 1.27 | 4.65 |

New Code Twisted Pair Cotton Lamp

Two conductor, twisted New Code Lamp Full coils bear Underwriters' inspection. Consists of fine copper strands, twisted together. Covering is of flax, interwoven yellow and green cotton. It is used for drop lights and extensions. Size 6 to 12 lbs. per 100 ft., according to size. Sold in lengths listed.

| Article Number | Size | Price For 100 Ft. | Price For 25 Ft. | Price For 10 Ft. |
|----------------|------|-------------------|------------------|------------------|
| 63 E 3175 | 18 | 28c | \$.65 | \$2.37 |
| 63 E 3180 | 16 | 36c | .84 | 3.00 |
| 63 E 3185 | 14 | 50c | 1.16 | 4.25 |

New Code Reinforced Portable Lamp

Consists of twisted pair Lamp Cord which is a seamless rubber jacket, and out of mercerized cotton. The best cord for extension lights, lamps and vacuum. Stands wear well. Wt., per 100 ft. 9 lb. only in lengths listed.

| Article Number | Size | Price For 10 Ft. | Price For 25 Ft. |
|----------------|------|------------------|------------------|
| 63 E 3250 | 18 | 38c | 87c |

Reinforced Portable Lamp Cord

Same as above but covered with braid. For extension lights and where used in damp places (not in water).

| Article Number | Size | Price For 10 Ft. | Price For 25 Ft. |
|----------------|------|------------------|------------------|
| 63 E 3255 | 16 | 53c | \$1.20 |
| 63 E 3260 | 14 | 73c | 1.67 |

BRASS SOCKET

Keyless Sockets 1/2-inch cap. Suitable for drop lights and on bowl fixtures where current is controlled by wall switch. Ship. wt., 3 oz.

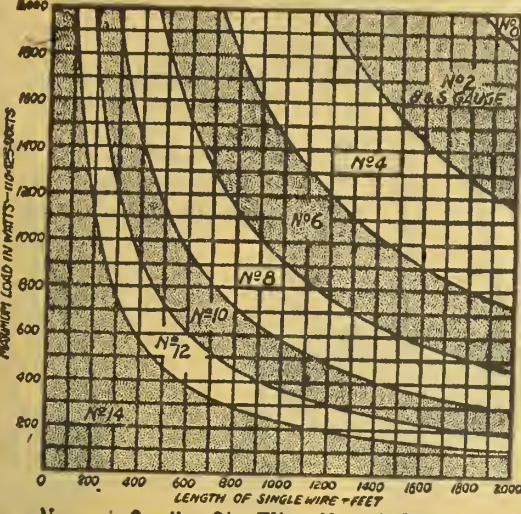
New Wrinkle Brand. 63 E 4520—Brush Brass Finish. Price, each..... 32c 63 E 4522—Polished Nickel Finish. Price, each..... 43c 63 E 4524—Oxidized Copper Finish. Price, each..... 43c

Composition Bushings 63 E 4560—Composition Bushings. Required in all sockets which are hung from drop cord. Fits any standard 1/2-inch cap socket. Ship. wt., per dozen, about 1 oz. Price, per doz..... Per hundred.....

| Article Number | Price Each | Size Holder |
|----------------|------------|-------------|
| 63 E 4735 | 8c | 2 1/4 in. |
| 63 E 4737 | 14c | 2 1/4 in. |
| 63 E 4739 | 14c | 2 1/4 in. |
| 63 E 4741 | 16c | 3 1/4 in. |

ELECTRICAL MATERIALS

These Charts Tell You What Size Wire to Use
Chart No. 2 for City Current of 110-125 Volts



No. 12 is Smallest Size Wire. No. 0 is Largest.

BLE, CONDUIT AND FITTINGS

Flexible Armored Cable (BX)

Consists of two or three solid copper wires, insulated with rubber, and two layers of cotton braid, over which is a cover of galvanized steel. Weight, per 100 ft., about 6 lbs.

| No. of Conductors | Gauge | Price Per Foot | Price For 100 Feet |
|-------------------|-------|----------------|--------------------|
| Two | 14 | 10c | \$8.40 |
| Three | 12 | 13c | \$12.60 |
| Three | 10 | 15c | \$15.00 |

Duplex Lead Covered Cable

For underground or underwater use. Consists of solid copper wire conductors, insulated with new code rubber compound over which is a saturated taping, enclosed in a continuous lead sheath which is protection against the action of gases, acids and other destructive elements.

| Article Number | Size Wire | No. of Wires | Approx. Wt., per 100 ft. | Price per Foot | Price per 100 Feet |
|----------------|-----------|--------------|--------------------------|----------------|--------------------|
| 63333333 | 14 | 2 | 22 lbs. | 5c | \$3.95 |
| 63333333 | 12 | 2 | 35 lbs. | 9c | \$7.25 |
| 63333333 | 10 | 2 | 47 lbs. | 11c | \$8.95 |
| 63333333 | 8 | 2 | 66 lbs. | 16c | \$12.95 |

Rigid Iron Conduit

Standard black enameled rigid iron conduit. Specially annealed to permit easy bending. Supplied in 10-ft. lengths only. Threaded on both ends with coupling on one end.

| Article Number | Size | Weight Per 100 Feet | Price Per 10 Feet | Price Per 100 Feet |
|----------------|---------|---------------------|-------------------|--------------------|
| 163E800 | 1/2 in. | 80 lbs. | \$.83 | \$7.75 |
| 163E801 | 3/4 in. | 120 lbs. | 1.08 | 9.95 |
| 163E802 | 1 in. | 175 lbs. | 1.60 | 14.85 |

PORCELAIN SOCKETS

Pendant Cap Porcelain Socket

Has porcelain pendant cap. For use on drop cords, in damp places or basements. Ship. wt., 5 to 7 oz.

63E4554—With key socket. Each.....33c

63E4614—With pull chain socket. Each.....83c

63E4615—With keyless socket. Each.....31c

Porcelain Sockets

National Electric Code Standard Sockets. White porcelain body. Threaded 1/2-inch brass cap. Brush brass finished cap on key and keyless types. For use on fixtures or drop cord. Ship. wt., each 5 or 6 oz.

63E4545—Porcelain Key Socket. Each.....45c

63E4549—Porcelain Keyless Socket. Each.....42c

63E4516—Porcelain Pull Chain Socket with nickel-plated cap and chain. Each.....98c

Porcelain Cleat Receptacle

Cleat Type Porcelain Receptacle. For use with surface wiring in basements, cellars or other damp places. Shipping weight, 7 oz.

63E4517—With key socket. Each.....38c

63E4618—With keyless socket. Each.....36c

63E4621—With pull chain socket. Each.....86c

Current Tap

63E4480—Screws into regular socket. Cord may be run from it to conduct current to a motor, electric iron, fan or other apparatus, in addition to having light at the socket tapped from. Porcelain body and cap. Ship. wt., 6 oz. Price.....49c

Luminous Socket Locator

63E4788—A very handy device for locating sockets in the dark. Attach it to pull chain or key sockets. Glows in the dark and enables you to locate the fixture at once. Attach one to every fixture not controlled by a wall switch and you will find it very useful. Ship. wt., of 3, 5 oz. Three for.....60c

PORCELAIN SOCKETS

Wall Socket

In base wall socket. All brush (satin) finish. 3 to 5 oz.

63E4570—With key socket. Each.....43c

63E4575—With keyless socket. Each.....24c

63E4571—With pull chain socket. Each.....70c

Weather-Proof Socket

63E4582—Porcelain weather-proof socket. For outside or basement wiring. Has 6-inch wire leads to connect on to supply line. Ship. wt., 5 oz. Price, each.....15c

Chain Receptacle

63E4580—Porcelain receptacle for work in and out. Screw holes 2 in. on hip. wt., 4 oz. Price, each.....13c

Wire T Connectors

This connector is similar to the wire connector listed on the opposite page, but is used in the outlet boxes or where a "tap-off" of the main line is desired. Made in two parts which can be separated by unscrewing. Insert wires through openings in connector, place wires under the heads of screws on brass insert and screw the two pieces together. Can be used for connecting sizes 12 and 14 single conductor wires only.

63E2692—Price, each.....\$.12

Ten for.....1.10

The saving in time and labor that can be effected by the use of these connectors and the connectors listed on the opposite page will more than offset their cost. Use them at every splice.

Free Estimating Service on Electric Wiring

We offer our Estimating Service to help you select the necessary materials to wire your house or buildings for electricity. Send us a diagram of the floors you want to wire indicating which way the joists run and where you want lights, also whether the building is already built or under the process of construction. We will then send you a correct list of the materials required. If you want to do the work yourself we will send you a book of Instructions free with the order. Any handy man can wire a house properly with the help we give. In case you want this instruction book before placing your order, order by article number below.

63E3000—Book on modern methods of wiring houses with special reference to farm electric plant systems. Ship. wt., 5 oz. Price.....25c

Edison Base Plug Fuses

For use on currents up to 125 volts. In selecting plugs, choose the smallest size that will pass just enough current for line with maximum load on. Ship. wt., each 1 oz.

| | | | |
|----------|--------------|----------|--------------|
| 63333333 | 4370—3 amp. | 63333333 | 4378—15 amp. |
| 63333333 | 4372—5 amp. | 63333333 | 4380—20 amp. |
| 63333333 | 4374—10 amp. | 63333333 | 4382—25 amp. |
| 63333333 | 4376—12 amp. | 63333333 | 4384—30 amp. |

Price, each.....6c

Ten for.....55c

GUARANTEED PORCELAIN MATERIALS

Porcelain Tubes

Un glazed Porcelain Tubes, 3/8 in. inside, 1/2 in. outside. Take either 14, 12 or 10 single strand rubber covered or weatherproof wire. Required wherever a wire is drawn through a partition or joist of any kind. Length given is from underneath to end. Wt., per hundred, 7 to 15 lbs.

| | |
|---------|----------------------------------|
| 63E3902 | Length, 3 in. Per Doz.....\$.22 |
| 463E902 | Length, 3 in. Per 100.....1.26 |
| 63E3904 | Length, 4 in. Per Doz.....1.27 |
| 463E904 | Length, 4 in. Per 100.....1.85 |
| 63E3906 | Length, 6 in. Per Doz.....2.43 |
| 463E906 | Length, 6 in. Per 100.....2.90 |
| 63E3908 | Length, 8 in. Per Doz.....2.70 |
| 463E908 | Length, 8 in. Per 100.....4.90 |

Assembled Split Knobs

The up-to-date knob. Consists of a complete new code knob assembled together with nail all ready to fasten in position. Just pick up knob, insert wire and drive into place. Save time, labor and money. Diameter, 1 1/2 in. Take No. 10, 12 or 14 wire. Weight, per 100, 10 lbs.

63E3939—Per Doz.....\$.53

463E939—Per 100.....3.86

Round Split Porcelain Knobs

New code No. 5 1/2 porcelain split knob. Ht., 1 1/2 in. Diam. 1 1/2 in. Hole, 1/2 in. Grooved for take one or two No. 12 or 14 wires. Ship. wt., per 100, 11 lbs.

63E3937—Per Doz.....\$.42

463E937—Per 100.....2.94

Porcelain Entrance Switch

National Electric Code Standard Porcelain Base Entrance Switch or main line cut-out switch. Takes plug fuses. Capacity 125 volts, 30 amperes.

63E4305—Two-Pole Switch. Reversible handle. Ship. wt., 1 1/2 lbs. Base, size, 3 1/2 x 5 1/2 in. Price, each.....76c

63E4307—Three-Pole Switch. Ship. wt., 2 1/2 lbs. Base, size, 5 1/2 x 5 1/2 in. Price, each.....\$1.19

Porcelain Base Plug Cut-Outs

63E4340—Main line double pole, porcelain base fuse block or cut-out for screw plug fuse. Capacity 125 volts, 30 amperes. Can be used to fuse main line or branch lines. Size, 2 1/2 x 3 1/2 in. Ship. wt., 8 oz. Price, each.....25c

Porcelain Base Plug Cut-Out

63E4352—Two-wire single branch, plug cut-out. Capacity 125 volts, 30 amperes. Size, base, 3 1/2 x 5 1/2 in. Ship. wt., 13 oz. Price, each.....27c

One-Piece Rosette

63E3980—One - Piece Rosette. For any style wiring. Ship. wt., each, 5 oz. Price, each.....9c

Wire Lamp Guards

Protect lamps against accidental breakage. Slip over lamp without holder. Ship. wt., each, 2 oz.

63E4721—Lamp Guard to fit over 16 C. P. carbon or 15, 25 or 40-watt tungsten lamps. Made of steel wire. Price, each.....\$.18

Dozen.....1.80

63E4725—An open bottom guard which enables easy removal or in-lamps. Made of steel wire. Price, each.....\$.25

Dozen.....2.50

Dim-a-lite

The Dim-a-lite is an interchangeable attachment for dimming a single electric light. A pull of the cord produces five changes of light—full, dim, low, night light and out. Saves from 25 to 75 per cent of the current, according to the position used. Can be changed from lamp to lamp. Brush (satin) brass finish. Can be used on any 40-watt or smaller lamp. Ship. wt., 5 to 7 ounces.

63E4990—Dim-a-lite for 110-volt current. Each.....\$1.19

63E4991—Dim-a-lite for 32-volt current. Each.....\$1.26

63E4992—110-volt Dim-a-lite with Shade Holder Attachment. Price, each.....\$1.26

Standard Attachment Plug

Separable black composition Edison base Standard Attachment Plug. Cap is interchangeable with wire 1 1/2 in. Trumbull, Bryant, General Electric, Benjamin, Hubbell and Cutler-Hammer standard receptacles and plugs. A neat and compact plug. Very strong and durable. Ship. wt., each, 3 oz.

63E4672—Price, each.....19c

63E4673—Extra plug caps. Each.....15c

Glazed Porcelain Cleats

Take either No. 14, 12 or 10 wires. Two wire have 2 1/2 in. wire centers, three 1 1/2 in. wire centers. Ship. wt., per doz, pair, 3 lbs.

63E3920—2 wire. Per doz.....\$.67

463E920—2 wire. Per 100.....4.75

63E3922—3 wire. Per doz......67

463E922—3 wire. Per 100.....4.75

Un glazed Porcelain Cleats

63E3923—2 wire. Per doz.....3.00

463E923—2 wire. Per 100.....3.00

Solid Porcelain Knobs

New code No. 5 1/2 solid porcelain Knob. Height, 1 1/2 in. Diameter, 1 1/2 in. Hole, 1/2 in. Groove, 3/8 in. Ship. wt., per 100, 11 1/2 lbs.

63E3927—Per Doz.....\$.32

463E927—Per 100.....2.20

63E3928—Solid porcelain Knob. Height, 1 1/2 in. Diameter, 1 1/2 in. Hole, 1/2 in. Groove, 3/8 in. Ship. wt., per 100, 20 lbs.

63E3929—Per doz.....\$.45

463E929—Per 100.....3.15

Reversible Porcelain Knobs

Round reversible split knobs. Top and bottom pieces alike. Easier to handle and install than ordinary split knobs. Height, 1 1/2 in. Diameter, 1 1/2 in. Grooved for two No. 12 or 14 wires. Ship. wt., per 100, 17 lbs.

63E3942—Per doz.....\$.45

463E942—Per 100.....3.15

Nail Heads

63E3950—Leather Nail Heads for use with any porcelain knobs or cleats. Wt., per pkg. of about 100, 2 oz. Price, per pkg.....9c

Panel Box Switch

63E4360—Panel Box Switch. For use in panel or steel switch box, where each circuit is to be controlled with a separate switch. Capacity, 125 volts, 30 amperes. Ship. wt., 26 oz. Size, base, 3 1/2 x 5 1/2 in. Price, each.....85c

Double Plug Cut-Out

63E4345—Two - wire main, double branch, plug cut-out. Capacity, 125 volts, 30 amperes. Size, 3 1/2 x 5 1/2 in. Ship. wt., 11 lbs. Price, each.....52c

63E4347—Three to two-wire double branch, plug cut-out. Capacity, 125 volts, 30 amperes. Size, 4 1/2 x 7 1/2 in. Ship. wt., 3 1/2 lbs. Price, each.....54c

Two-Piece Porcelain Rosettes

Used for installing drop lights. Very easy to install. Fasten base in position and attach line wires. Fasten cord to cap and turn cap onto base. Ship. wt., 8 oz.

Concealed Rosette

Used with concealed wiring. 63E3960—Price each.....15c

Cleat Rosette

Used with open wiring. 63E3965—Price, each.....15c

Ship. wt., 5 oz.

Send for our lighting fixture catalog

LIGHTING FIXTURES

POWER-LITE ELECTRIC PLANTS (page 574)
AUTOMATIC WATER SYSTEMS (page 575)
WIRING MATERIALS (page 576)

Montgomery Ward & Co.

Large Size Powerlite Unit. This Complete Electric Light and Power Plant for the home is guaranteed to give you 1000 watts of power for 1000 hours of use.

SOLD ON CASH 1000 WATTS 1000 HOURS \$1.95

1000 WATTS 1000 HOURS \$1.95

So Simple a Child Can Operate It

AUTOMATIC ELECTRIC WATER SUPPLY SYSTEMS

For City or Country Homes. This Electric Water Supply System is guaranteed to give you 1000 gallons of water for 1000 hours of use.

SOLD ON CASH 1000 GALLONS 1000 HOURS \$1.95

1000 GALLONS 1000 HOURS \$1.95

So Simple a Child Can Operate It

THIS LIGHTING FIXTURE BOOK

FREE TO YOU

A Few Samples of the "Money Saving Values" We Show in this Big Free Book. Send for it Today

You Can Profit by the Information This Book Contains!

Not a mere catalog—but a valuable source of information on all things electrical pertaining to house wiring, lighting fixtures, lighting plants, water supply systems, etc.

We have checked every item of our cost with the utmost care and have priced this catalog on the lowest possible cost basis. We believe our prices to be the lowest in the country on lighting fixtures of equal quality. We welcome price comparisons and only ask that you be sure that any other fixtures you may have in mind are equal in quality to those we offer.

The four pieces shown on this page are good examples of the low prices we are quoting on our entire line of fixtures. Every one of these pieces is made of the very best of materials, yet the prices quoted are lower than asked for many of inferior quality. You will find on looking through our catalog that you can make a saving on any fixture you select.

Lighting Fixtures Bought From Us Mean Dollars Saved For You

Our fixtures are of superior quality. They are designed and made in the foremost factories in the country by expert metal craftsmen. No detail in even the lowest priced fixture has been slighted.

We have arranged with the National Board of Fire Insurance Underwriters to have their inspectors make systematic inspections of our lighting fixtures during the process of assembling. Every fixture we ship conforms to their requirements and bears their inspection tag.

A Fixture For Every Room A Pattern For Every Taste

You will find it easy to choose fixtures that will light your home properly, and improve the decorative effect. We have supplied fixtures to thousands of homes and they have invariably met with enthusiastic approval.

When you buy from us our guarantee absolutely protects you, for you need not keep the fixtures unless they satisfy you in every particular.

You will find our fixtures very easy to install. They are shipped completely wired, and are fitted with wire connectors so that any handy man can install them easily even though he has had no previous experience of this kind. The only tools required are a screw driver and a pair of pliers.

Generate Your Own Current

Even though you may not have electric current available, you and your family can enjoy the economy, comforts and convenience that electric appliances afford. If you cannot connect to a power line a Powerlite Electric Plant will solve the problem simply and effectively. Low in price, high in efficiency, simple in operation, and positive in action, they represent the best value in high grade electric light and power plants on the market today.

Sold on easy payments or for cash as you prefer.

You cannot afford to buy an Electric Plant until you have thoroughly investigated our proposition. Read carefully the entire section devoted to Electric Plants in our Lighting Fixtures Catalog.

Running Water at Your Service

You owe it to yourself and to every member of your family to have running water in the bath room, kitchen, laundry, dairy or stable. Our Automatic Electric Water Supply System will provide running water in every one of these places, and wherever else wanted. No more weary hours of pumping water for the stock or house. A turn of the faucet and you have all the water you need.

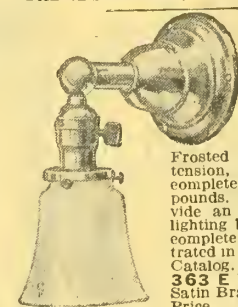
Made by one of the leading manufacturers of Electric Water Supply Systems. We guarantee them to do their work perfectly when used under normal conditions. Fully described in our Free Lighting Fixture Book.

Send for our Lighting Fixtures Catalog today and see for yourself how much you can save on high quality merchandise.

4-Light Semi-Indirect Fixture

Four-Light, Semi-Indirect Fixture. Bowl and shades of frosted glass embossed in handsome Gothic design. Length over all, 36 inches. Metal parts brush satin, brass finish. Wired with silk cord. One socket wired inside of bowl. Key sockets on side lights. Bowl diameter, 11 1/4 inches. Shipping weight, 50 and 30 pounds.

363 E 7003—Complete, as illustrated, wired. Price, \$9.95
363 E 7004—Without side lights, wired. Price, \$5.65
Flemish brass finish, 70 cents extra.



Wall Bracket

Made of genuine brass. Wall canopy diameter, 4 1/2 inches. Key socket. Extension, 6 inches. Wired complete. Shipping weight, 6 pounds. Wall Brackets provide an economical way of lighting bed rooms. A large, complete selection is illustrated in our Lighting Fixture Catalog.

363 E 7530—Brush Satin Brass Finish. Price, \$1.58
363 E 7531—Flemish (Antique Satin) Finish. Price, \$1.77
363 E 7532—Oxidized Copper Finish. Price, 1.79
363 E 7533—Polished Nickel Finish. Price, 1.79

For Living Room or Library

Semi-Indirect Electric Bowl Fixture. Length over all, 36 inches. Bowl is of white alabaster glass, 15 1/4 inches diameter, glazed inside, satin finish. Embossed in conventional Grecian design. Two lights. Keyless sockets wired complete with silk cord. Shipping weight, 40 pounds.

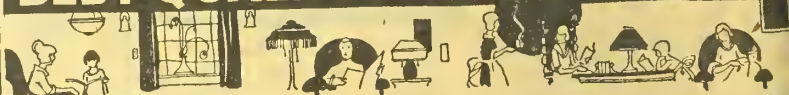
This style fixture provides an excellent means of lighting the living room, parlor, etc. A large assortment of other designs is shown in our Lighting Fixtures Catalog.
363 E 7538—Brush Brass Finish. Price, \$5.00
363 E 7539—Flemish (Antique Satin) Finish. Price, \$6.00
363 E 7540—Oxidized Copper Finish. Price, 6.00

Ceiling Light

Electric Ceiling Light complete with brass ceiling band. Diameter, 5 1/2 inches. Keyless socket. Attractive Sheffield Pattern ribbed glass ball frosted inside, diameter, 6 inches. Shipping weight, 8 pounds.

363 E 7541—Brush Brass Finish. Price, .98c
363 E 7542—Matte Black Finish. Price, \$1.00
363 E 7543—Oxidized Copper Finish. Price, 1.00
363 E 7544—Polished Nickel Finish. Price, 1.00

BEST QUALITY ELECTRIC BULBS



Clear Bulb Tungsten Sign Lighting Lamps

All standard Edison screw base. Bulb diameter, 1 1/4 inches. Length over all, 4 1/4 inches. The 11 to 12 1/2 volt are intended to be wired 10 in series and the 55 to 65 volt, 2 in series, on 100 to 120 volt circuits. The 11 to 12 1/2 volt lamps can also be lighted from a 12 volt storage battery. Shipping weight, per package of five, 4 lbs. Order by article number.

| Art. No. | Volts | Watts | 5 For |
|-----------|--------------|-------|--------|
| 63 E 5001 | 11 to 12 1/2 | 2 1/2 | \$1.75 |
| 63 E 5002 | 11 to 12 1/2 | 5 | 1.75 |
| 63 E 5009 | 55 to 65 | 5 | 1.75 |



Carbon Lamps

Best quality new Class A Carbon Lamps. Guaranteed life. Made by one of the most reliable factories. New lamps of the best quality. Vastly superior to the refilled lamps at slightly lower prices. Shipping weight, per package of 5 lamps, about 5 pounds.

63 E 4970—8 C. P. 110 volt. Five for, 99c
63 E 4972—16 C. P. 110 volt. Five for, 99c
63 E 4974—32 C. P. 110 volt. Five for, \$1.35

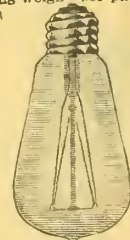


Lamps for 30-32 Volt Farm Electric Plant Current

These lamps are for Electric Lighting Plant Current of 30-32 volts. (15-16 cell storage battery plant). All fit regular Edison base sockets. Shipping weight per package of five, 3 to 5 pounds according to type.

Tungsten Lamps For 30-32 Volt Current

| With Clear Bulbs | | | |
|------------------|-------|----------|--|
| Article Number | Watts | Five For | |
| 63 E 4928 | 5 | \$1.75 | |
| 63 E 4930 | 10 | 1.75 | |
| 63 E 4932 | 15 | 1.75 | |
| 63 E 4933 | 20 | 1.75 | |
| 63 E 4936 | 25 | 1.75 | |
| 63 E 4940 | 50 | 1.75 | |



Tungsten Lamps For 30-32 Volt Current

| With Frosted Bulbs | | | |
|--------------------|-------|----------|--|
| Article Number | Watts | Five For | |
| 63 E 4943 | 5 | \$1.75 | |
| 63 E 4945 | 10 | 1.75 | |
| 63 E 4947 | 15 | 1.75 | |
| 63 E 4951 | 20 | 1.75 | |
| 63 E 4953 | 25 | 1.75 | |
| 63 E 4957 | 50 | 1.75 | |

30-32 Volt Frosted Round Tungsten Lamps

For candle fixtures and for lamps requiring a small bulb.

| Article Number | Watts | Dia Bulb | Price Five |
|----------------|-------|----------|------------|
| 63 E 4958 | 10 | 2 1/4 | \$3.45 |
| 63 E 4960 | 20 | 2 1/4 | 3.45 |
| 63 E 4959 | 40 | 3 1/4 | 3.45 |



30-32 Volt Nitrogen Lamps

These are highly efficient nitrogen gas filled lamps, with clear glass bulbs, that produce a brilliant white light. Shipping weight, 1 to 3 pounds according to size.

| Article No. | Watts | Each |
|-------------|-------|--------|
| 63 E 4900 | 25 | \$.59 |
| 63 E 4901 | 50 | .59 |
| 63 E 4902 | 75 | .62 |
| 63 E 4903 | 100 | 1.02 |



TELEPHONES AND TELEPHONE MATERIALS



Battery Telephone Saves Steps—

A useful and inexpensive telephone. Good use can be found for a set of these phones in the home, office, store or shop. They save many steps and much time. A press of the button instantly calls the person to whom you wish to speak. Will give satisfactory service at any distance not over 500 feet. Made entirely of metal. A pair of telephones, four batteries and two connecting wires, comprise a complete system. A wiring diagram is supplied with each set. Anyone can install them quickly and easily. See opposite page for prices on batteries.

63 E 1165—Battery Telephones (two telephones). Without batteries. Without wires. \$6.85

Ship. wt., 6 lbs. Per pair.

Long Distance Battery Telephones

These phones are of an extra high quality construction. Can be used over distances as great as 1,000 feet. A pair of telephones, four or more batteries and two connecting wires, comprise a complete system.

Wiring diagram sent with each set. Anyone can quickly and easily install them. Case made of heavy Japanese metal. Shipping weight, per pair, 8 lbs. Batteries and wire not included.

63 E 1168—Price, per pair (two telephones) \$11.95

TELEPHONE SUPPLIES

Rubber Covered Twisted Pair Telephone Wire

Each conductor consists of a size 19 copper wire, covered with rubber insulation, over which is a cotton braid; two such conductors are twisted together. Ship. wt., per 100 feet about 4 lbs.

63 E 1217—With dry insulation for inside wiring. Per 100 ft. \$1.48

63 E 1218—With saturated braid for outside wiring. Per 100 ft. \$1.40

Telephone Wire

No. 12 Best grade B. B. Galvanized Iron Telephone Wire. Put up in half-mile coils all in one piece, without splice or joint. Has extra heavy zinc covering which protects wire from corrosion. Prices on this wire are subject to market changes. We will give you the lowest price possible.

63 E 1075—No. 12 B. B. Galvanized Iron Wire. Per half-mile coil, about 85 lbs. \$7.45

63 E 1077—No. 14 B. B. Galvanized Iron Wire. Per half-mile coil, about 48 lbs. \$4.65

Shipped from Warehouse in Chicago.

Linemen's Belts

63 E 1245—Linemen's Safety Tool Belt. Made of extra heavy, harness leather, very best quality. Six tool loops. Belt passes through heavy rings. Length, 40 in. Width, 2 1/4 in. with 2-inch roller buckle. Ship. wt., about 2 lbs.

Price, \$3.80

63 E 1250—Safety Strap. Made of extra heavy harness leather, very best quality. Adjustable length. Heavy snap on each end. Length 6 ft. Width, 1 1/4 in. Ship. wt., about 2 lbs.

Price, \$3.75

Linemen's Climbers and Straps

These climbers are made of the best tempered steel. Finely finished. Will give the best satisfaction. No better of the kind made. Length, 15, 16, 17 or 18 inches. State size wanted.

63 E 1235—Climbers. Eastern pattern. Without straps. Shipping weight, 4 lbs. \$2.85

63 E 1240—Set of fold climber straps and two knee pads. Shipping weight, 1 1/2 lbs. \$1.80

Lightning Arresters

63 E 1255—Single Pole Lightning Arrester or line protector for grounded or single wire lines. Western Union pattern, length, 4 3/4 in. Ship. wt., 4 ounces. 29c

63 E 1257—Double Pole Arrester for metallic circuit (two wires) lines. Length, 4 3/4 in. Ship. wt., 8 oz. Price, without fuse 40c

Fuses

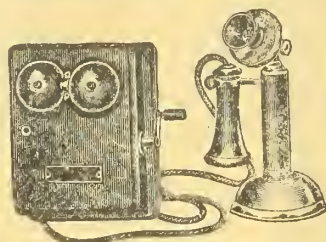
63 E 1260—Mica enclosed flat fuses for standard fuse blocks. Ship. wt., 2 oz. 34c

Per dozen.

Aerial Arrester

63 E 1341—No. 700 aerial line arrester for protecting rural telephone lines from lightning. Attached to line without cutting wire. Large capacity to carry off lightning. Will not ground the line. Waterproof, rustproof and self cleaning. Install one on each wire at exposed locations along the line. Length, about 7 in. Ship. wt., 8 oz. Each. 83c

Bridging Telephone Desk Set



The Handy Telephone

Desk Set, complete, as illustrated. For use on any rural telephone line. The up-to-date telephone. Generator and ringer mounted in fine oak cabinet. Improved transmitter stand with polished nickel base. Ship. wt., 32 to 36 lbs. Prices include 2 dry batteries.

| Article Number | Price Each | Size Gener. | Ringer Movement |
|----------------|------------|-------------|-----------------|
| 263 E 1020 | \$16.80 | 5-Bar | 1000 ohm |
| 263 E 1022 | 16.90 | 5-Bar | 1600 ohm |
| 263 E 1024 | 17.00 | 5-Bar | 2000 ohm |
| 263 E 1026 | 17.00 | 5-Bar | 2500 ohm |
| 263 E 1028 | 16.95 | 6-Bar | 1000 ohm |
| 263 E 1030 | 17.05 | 6-Bar | 1600 ohm |
| 263 E 1032 | 17.10 | 6-Bar | 2000 ohm |
| 263 E 1034 | 17.15 | 6-Bar | 2500 ohm |

Shipped promptly from Factory in Northern Indiana.

Compact Model Bridging Telephone

A fine quality high grade telephone for use on any bridging or private line of any length. Oak cabinet, finely varnished and polished. Every part is made of the very best materials obtainable and will last a lifetime without attention or repair, except for renewing of batteries every year or two. Our telephones ring strong under all conditions. They catch and transmit every voice tone. Always dependable; will give constant service. Read our guarantee below. You are fully insured against trouble of any kind. Easily installed in a few minutes with the complete directions we furnish.

The Compact Type Telephone has almost completely replaced the Long Cabinet Type. It has every feature of the older type and has the extra advantage of requiring less space on the wall.

Equipped with solid back transmitter, bi-polar receiver, lightning arrester, adjustable ringer movement with 3-inch gongs, powerful generator with laminated magnets, each bar consisting of three distinct magnets tempered and magnetized separately. Every 5-Bar generator has 15 magnets and every 6-Bar generator has 18 magnets. Length, 20 inches; width, 9 inches. Ship. weight, 32 to 36 pounds.

Shipped promptly from Factory in Northern Indiana.

Prices include 2 dry batteries.

| Article Number | Price Each | Size Gener. | Ringer Movement |
|----------------|------------|-------------|-----------------|
| 263 E 1001 | \$15.20 | 5-Bar | 1000 ohm |
| 263 E 1003 | 15.30 | 5-Bar | 1600 ohm |
| 263 E 1005 | 15.35 | 5-Bar | 2000 ohm |
| 263 E 1007 | 15.40 | 5-Bar | 2500 ohm |
| 263 E 1009 | 15.35 | 6-Bar | 1000 ohm |
| 263 E 1011 | 15.45 | 6-Bar | 1600 ohm |
| 263 E 1013 | 15.50 | 6-Bar | 2000 ohm |
| 263 E 1015 | 15.55 | 6-Bar | 2500 ohm |

All Telephones on the same line must have ringer movements with the same ohm resistance.

Our Telephone Guarantee

We guarantee that every telephone will be exactly as described and give perfect satisfaction, or you may return it and receive back all money you have paid, including transportation charges. If any part proves defective, we will replace or repair it without charge. This guarantee applies to the complete instrument and all its parts.

Important

If a line is already in operation in your neighborhood, and you wish to go in on it, no matter if the instruments already in use are not of our make, you can use our telephones on the line. All the telephones on any one line must have ringer movements wound to the same resistance in ohms. The resistance in ohms is always stamped plainly somewhere on the ringer movements of all phones. Find out the resistance of those already installed on the line and order your telephones with ringer movements of the same resistance.

Repairs

We can furnish repairs for any of our telephones at any time. If you have one of our telephones which needs repairs and you do not find the part you need on this page, write for our telephone repair parts list.

Galvanized Brackets

Galvanized Iron Brackets. Easy to install, substantial in construction and galvanized to meet weather conditions. For telephone or house lighting wires. Hold pony glass insulators.

| Art. No. | No. of Points | Length, in. | Ship. Wt. | Price Each |
|-----------|---------------|-------------|------------|------------|
| 63 E 1280 | 1 | 4 1/4 | 12 oz. | 19c |
| 63 E 1282 | 2 | 12 3/4 | 1 1/4 lbs. | 45c |
| 63 E 1284 | 3 | 16 | 2 1/4 lbs. | 68c |

Oak Brackets

No. 4 standard painted oak brackets for holding glass insulators. Fastened to side of pole or building. Length, 10 in. Ship. wt., per 100, 50 lbs.

163 E 1087—Per hundred. \$3.20

63 E 1276—Each.04

Pony Glass Insulators

No. 9 standard; the size usually used for telephone and telegraph lines. Packed 400 in a barrel. Ship. wt., per bbl. 300 lbs.

263 E 1085—Per barrel of 400 Shipped from Warehouse in Chicago. \$21.50

63 E 1267—Less than barrel lots. Shipped from stock. Each 6c

Ground Rod

463 E 1081—Iron Ground Rod: length, 6 ft. Heavily galvanized. A ground rod is necessary with every telephone to insure a perfect ground contact. Ship. wt., 4 lbs. 40c

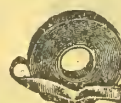
Price, each.

Transmitters

63 E 1130—Long distance, solid back transmitter without arm. Will give the best of service. It will transmit the lowest articulate sounds over long distances. Can be used on any make telephones, except phones. Weight, 16 ounces. \$1.85

Price.

63 E 1132—Transmitter, mounted on pony arm, as used on compact cabinet phones. Shipping weight, 28 ounces. Each \$2.50



Insulating Tape

For wrapping wires where insulation has been scraped off. In making joints on electric wires, joints must first be soldered, then wrapped with rubber splicing compound over which friction tape must be wound.

63 E 5848—Black Friction Tape, 1/4 in. wide. A high grade tape. Half-pound package. 33c

63 E 5854—Rubber Splicing Compound, 1/4 in. wide. One of the best rubber splicing compounds on the market. Half-pound package. 33c

ELECTRIC SOLDERING IRONS AND SUPPLIES

High Grade Electric Soldering Irons

Do away with the work and inconvenience of using the old type iron. Simply screw attachment plug into socket and turn on current. Iron heats to working temperature in two to three minutes. Patented heating element cannot be short circuited or burned out on current of proper voltage. Copper soldering tips have special heat retaining qualities. Tips screw into copper core. Easily removed and others substituted. Steel parts gun metal finish. Equipped with 6-ft. cord and attaching plug.

For Garage and General Heavy Work

63 E 5874—Especially suitable for garage and general heavy work. Extra tips are especially adapted for soldering battery terminals and burning in connections. Length 16 in. Diam. of tip shown in iron 1 1/4 in. hooked tip average diam. 1/2 in. small tip diam. 3/4 in. Ship. wt., about 4 lbs. Price, complete with three tips, for use on 108 to 115 volt current. \$16.80

For Use on 108 to 115 Volt City Current.

63 E 5870—For general small solder work around the house or manufacturing plant. Length 16 in. Diam. of tip, 1 in. Uses 200 watts current. Ship. wt., 3 lbs. \$11.60

Price.

63 E 5872—For light soldering work for jewelers, telephone exchanges, etc. Length 13 1/4 in. Diam. of tip 1/2 in. Uses 75 watts current. Ship. wt., 2 lbs. \$8.70

Price.

Soldering Set



63 E 5844—A complete outfit for ordinary small soldering. Consists of 1 lb. copper, bar of solder, powdered directions. Put up in wooden box. Far as all good quality, making it suitable for work and light household repairing. 1 1/2 lbs. Price, complete set.

Wire Solder

Prices on Solder Subject to Market

| Acid-Flux | Acid-Flux |
|---|---|
| 63 E 5830—Acid Core Wire Solder no flux. Indispensable for soldering connections and extensively used on work. Price, per lb. 11c | 63 E 5832—plain wire Solder. Ver all electrical soldering. Price, per lb. 38c |

Soldering Paste

A fine flux, in a convenient form. A flux must be used with solder to make a strong and neatly soldered joint.

63 E 5836—Per 2 oz. can. 11c

63 E 5838—Per lb. can. 38c

Extension Bells

These bells may be connected by wires with any telephone. Can be placed at any point away from phone, in another part of the house, or in some nearby building. When the telephone bell rings the extension bell will likewise ring. The extension bell must have exactly the same ohm resistance as the movement on telephones with which it is connected. Weight, 3 1/2 lbs.

63 E 1170—80 ohm (series)

63 E 1172—1000 ohm

63 E 1174—1600 ohm

63 E 1176—2000 ohm

63 E 1178—2500 ohm



63 E 1141—Receiver shell. Ship. Price, each.

63 E 1142—Cord with spade tips on end and solid tips on other end. Length, Ship. wt., 2 oz. Each.

63 E 1143—Cord with spade tips on end. Length, 36 in. Ship. wt., 2 oz. Each.

Magnet Wire

For repairing motors, other electrical apparatus, experimental work, etc. One piece only on a spool. Wire is standard B and S gauge. Insulation and wire both perfect and uniform. Supplied only in weight spools given.

| Double Cotton Covered Magnet Wire Art. No. 63 E 1350 | Price 8 oz. Spool | Price 1 lb. Spool | Gauge | Belden En Magnet Wire Art. No. 63 E 1 | Price 8 oz. Spool |
|--|-------------------|-------------------|-------|---------------------------------------|-------------------|
| | \$.65 | \$.95 | 14 | | \$.45 |
| | .69 | 1.03 | 16 | | .46 |
| | .74 | 1.13 | 18 | | .47 |
| | .84 | 1.34 | 20 | | .62 |
| | .92 | 1.54 | 22 | | .65 |
| | 1.02 | 1.74 | 24 | | .70 |
| | 1.18 | 2.06 | 26 | | .76 |
| | 1.46 | 2.62 | 28 | | .85 |
| | 1.64 | 3.08 | 30 | | .90 |
| | 1.84 | 3.38 | 32 | | .92 |
| | 2.84 | 5.34 | 36 | | 1.20 |

ELECTRICAL IGNITION AND CHARGING APPARATUS

Jump Spark Coils

Economical in battery consumption and positive in action. The range of current consumption from 2 to 4 of an ampere. Genuine Tungsten rivets are used for contact points. Highly polished oak case small enough to fit into any ordinary battery box. Operates on 4 or 5 cells, connected in series or on 6-12 storage battery. Shipping weights, 3 1/2 and 4 pounds.



- 63 E 2625—Single Cylinder coil. Price, each.....\$3.60
63 E 2627—Double Cylinder coil. Price, each.....7.20

Make and Break Coils

Steel case coil for use with engine with make and break ignition. Will not affect efficiency if installed in wet places and exposed to the weather. Low current consumption. Size, 2 1/2 x 2 1/2 x 6 1/2 inches. Shipping weight, 2 1/2 pounds.
63 E 2635—Without Switch. Price.....95c
63 E 2637—With switch as illustrated. Price, each.....\$1.05
63 E 2636—Coil without switch to operate direct from 32-volt Farm Lighting Plant Current. Price, each.....\$1.10

Eveready Ignition Magneto



Make and Break or Jump Spark

One of these magnetos will replace the batteries used with any engine. It will pay for itself in a short time and will insure continuous reliable operation of your engine. Constructed stand hard service and should last as long as any engine made. Most engines 5 horse power and smaller can be started with this igneto without the aid of batteries. After igneto is started magneto will supply ample current to ignite any engine even the largest. It is run at speed of about 2500 revolutions per minute. Automatic governor prevents magneto from running faster than necessary. With this magneto the coil now on your engine can be used but be sure to order the correct magneto for your coil. Shipping weight, 12 lbs.

Eveready Make and Break Magnetos

- 63 E 375—With 2 1/2-inch friction drive lever without spark coil. Price, each.....\$10.95
63 E 377—With 2 1/2-inch friction drive lever with make and break coil mounted in h. Price, each.....\$11.90
63 E 380—With 2 1/2-inch belt drive pulley 3/4 round belt, without spark coil. Price, each.....\$11.70
63 E 382—With 2 1/2-inch belt drive lever with make and break coil mounted in h. Price, each.....\$12.50

Eveready Jump Spark Magnetos

- 63 E 385—With 2 1/2-inch friction drive lever without spark coil. Price, each.....\$11.50
63 E 387—With 2 1/2-inch belt drive pulley 3/4 round belt without spark coil. Price, each.....\$11.95

American Ignitor Dry Cell

We guarantee that these batteries will reach you fresh and will give you all the service you have a right to expect of the best 2 1/2 by 6-inch dry cell made. Designed especially for heavy duty work. For ignition work on gas engines, automobiles, motor boats, etc. Average weight, 2 pounds. Size, 2 1/2 by 6 inches. Average initial amperage, 25 to 30 amperes.



- 63 E 2501—Price, each.....45c
63 E 2502—Price, per dozen.....\$5.28

American Regular Battery

For ordinary telephone use, for door bell circuits and all light drain service this is a better battery than the American Ignitor as it has a longer life when not heavily drawn upon. Average weight, 2 pounds. Size, 2 1/2 x 6 inches. Average initial amperage, 18 to 22 amperes.

- 63 E 2504—Price, each.....\$.44
63 E 2505—Price, dozen.....5.16

Roller Smith Universal Ammeters

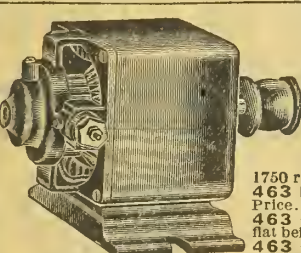


Standard size, small direct current ammeter. Can be used on all makes of automobiles regardless of type and voltage of system. Guaranteed against burnouts. Used as standard equipment on many popular cars. Flush mounting flange, diameter, 2 1/2 inches. Diameter of body 2 inches. Indicates charge and discharge up to 30 amperes. Ship. wt., 1 lb.
63 E 2557—Ammeter with black enamel flange. Price.....\$2.75
63 E 2558—Ammeter with polished nickel flange. Price.....\$2.75

Eveready Battery Meters

These meters will tell you the condition of your dry cells or storage battery. Metal dial, brass case, nickel-plated and polished. Diameter, 2 inches. Detachable flexible cord 10 inches long to connect to battery. Shipping weight, 4 ounces.

- 63 E 2541—Ammeter for testing dry cell batteries. Reads 0 to 35 amperes.....72c
63 E 2542—Voltmeter for testing storage batteries. Reads 0 to 10 volts. Price, each.....78c
63 E 2543—Combination Voltmeter and ammeter for testing both dry cell batteries and storage batteries. Reads 0-35 amperes, 0-11 volts. Price, each.....93c



63 E 2544—Fitted with pulley for 1/2-inch round belt and low voltage cut-out to disconnect charging circuit when voltage drops below 7 volts. Price, each.....\$17.50
63 E 2545—Fitted with pulley for 1-inch flat belt and low voltage cut-out. Price, each.....\$17.50

Send for Our Free Radio Supplies Catalog just off the press. Our Radio line is complete and priced right.

American Unit Battery



Every Ford owner who does not have an electric starter on his car should have an American Unit Battery. It eliminates

Prolonged cranking. Ignites the first compression of gas. The Unit Battery also provides ignition current for stationary gas engines and tractors, current for bells and buzzers and lighting for closets, garrets, cellars, tents and camps. A Unit Battery is made of 4 regular 2 1/2 x 6-inch ignitor cells connected in series and enclosed in hermetically sealed theodolite case. Will outlast two sets of ordinary dry cells. Test 6 volts, 22 to 30 amperes. Size, 10 1/2 x 2 1/2 x 7 inches. Shipping weight, 10 pounds.

- 463 E 418—American Unit Battery. Price.....\$2.70

American Multiple Battery

Same construction as the Unit Battery but enclosed in enameled metal case. Especially adapted for motor boat ignition or where exposed to moisture, weather, heat or rough handling.

- 463 E 414—Set of 5 cells in series. Test 7 1/2 volts, 22 to 30 amperes. Container size, 13 1/2 x 7 inches. Shipping weight, 12 pounds. Price, per set.....\$4.10
463 E 412—Set of 8 cells, 4 in series, two multiples. Tests 6 volts, 45 to 60 amperes. Container size, 10 1/2 x 5 1/2 x 7 inches. Shipping weight, 20 pounds. Price, per set.....\$5.80



Strongly made switches. Metal base not easily broken. Brass contacts and switch blade.

Handle is insulated. Shipping weight, 2 ounces.

- 63 E 2680—Single Throw Switch. Price, each.....20c
63 E 2682—Double Throw Switch. Price, each.....27c

Griptite Battery Connections

Instantly applied or removed, without tools. Perfect contact always.

- 63 E 2672—Per package of ten. Shipping weight, 2 ounces. Price.....30c

Charging and Lighting Generator

This generator delivers a current that will charge properly any six-volt lighting or starting battery without adjustment or regulation. Also can be attached direct onto line of motor boat and tractor lighting systems, or for any other purpose where a direct current of about 8 volts, 8 to 10 amperes is required. This is a strong rugged generator that will give lasting efficient service. Has base for convenient attaching to any flat surface. Shipping weight, 10 pounds. 6 inches high, 7 1/2 inches wide, 8 1/2 inches long. Fitted with pulley 2 1/2 inches diameter. Delivers about 8 volts, 8 amperes against resistance when run at a speed of 1750 revolutions per minute. Amperage increases with speed.
463 E 292—Fitted with pulley for 3/4-inch round belt. Price.....\$14.50
463 E 296—Same as above but fitted with pulley for 1-inch flat belt. Price, each.....\$14.50
463 E 290—Fitted with pulley for 1/2-inch round belt and with low voltage cut-out to disconnect charging circuit when low voltage drops below 7 volts. Price, each.....\$17.50
463 E 294—Fitted with pulley for 1-inch flat belt and low voltage cut-out. Price, each.....\$17.50

AUTOMOBILE LAMPS

These automobile lamps are the very best quality. In addition to being used for automobile lighting can be used in connection with storage battery lighting for many other purposes, such as motor boat and tractor lighting, etc. Shipping weight, each, 3 to 5 ounces.

Nitrogen Type C Lamps

For Headlights and Spotlights

These bulbs give a brighter, whiter light on less current than the vacuum type.

| Article No. | Double Contact Base | Article No. | Single Contact Base | Voltage | Amps. | Approx. Candle Power | Approx. Diam. Inches | Price For Five |
|-------------|---------------------|-------------|---------------------|---------|-------|----------------------|----------------------|----------------|
| 63 E 2830 | | 63 E 2864 | | 6-8 | 2 1/2 | 21 | 1 1/2 | \$1.56 |
| 63 E 2834 | | 63 E 2868 | | 6-8 | 4 | 32 | 1 1/2 | 2.56 |
| 63 E 2831 | | Not Made | | 9 | 2 | 27 | 1 1/2 | 1.65 |
| 63 E 2832 | | 63 E 2869 | | 12-16 | 1 1/2 | 21 | 1 1/2 | 1.65 |
| 63 E 2833 | | 63 E 2873 | | 18-24 | 1 | 27 | 1 1/2 | 2.40 |

*Regular Ford size wired two in series with magneto.

Tungsten Type B Vacuum Lamps

For Headlights and Spotlights

| Art. No. | Double Contact Base | Art. No. | Single Contact Base | Voltage | Approx. Amp. | Approx. Candle Power | Approx. Diam. Inches | Price For Five |
|-----------|---------------------|-----------|---------------------|---------|--------------|----------------------|----------------------|----------------|
| 63 E 2806 | | 63 E 2844 | | 6-8 | 2 1/2 | 15 | 1 1/2 | \$1.50 |
| 63 E 2824 | | Not Made | | 9 | 2 | 18 | 1 1/2 | 1.50 |
| 63 E 2825 | | 63 E 2859 | | 12-16 | 1 | 15 | 1 1/2 | 1.50 |

*Regular Ford size wired two in series with magneto.

Tungsten Sidelight and Tail Light Lamps

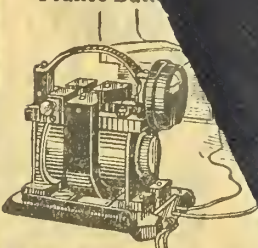
| Art. No. | Double Contact Base | Art. No. | Single Contact Base | Voltage | Approx. Candle Power | Approx. Diam. Inches | Price For Five |
|-----------|---------------------|-----------|---------------------|---------|----------------------|----------------------|----------------|
| 63 E 2880 | | 63 E 2910 | | 3-4 | 2 | 3/4 | \$.91 |
| 63 E 2884 | | 63 E 2916 | | 6-8 | 2 | 3/4 | .91 |
| 63 E 2886 | | 63 E 2916 | | 6-8 | 2 | 3/4 | 1.04 |
| 63 E 2902 | | 63 E 2932 | | 12-16 | 2 | 3/4 | 1.14 |
| 63 E 2904 | | 63 E 2934 | | 12-16 | 4 | 1 | 1.14 |
| 63 E 2907 | | 63 E 2935 | | 18-24 | 2 | 3/4 | 1.30 |

*Can be used on Rear Lamp of Ford wired direct to magneto.

Double Filament Lamp for Ford Headlights

63 E 2850—High-grade double filament Type C Nitrogen filled lamp. This is the same type now furnished as standard equipment on Ford Cars and is the latest development in Ford Headlight bulbs. Four candle power filament furnishes correct light for city driving. Twenty-one candle power filament provides powerful light for country roads. Double contact base. Six to eight volts. Shipping weight, 5 lamps, 1 pound. Price for 5.....\$2.60

France Battery



We Prepay Transportation Charges on These Rectifiers

For charging exhausted batteries or low batteries. The largest starting and battery can be charged for a few cents—less than 10 cents even on high rates. Just plug into the light socket, attach leads to the car and turn on current. Battery can be left in the car if desired. Large connecting clips make easy to hook on to any battery.

Note: These rectifiers are for use only on 115-volt 60-cycle alternating current, which is the usual city lighting current. Will not work on direct current nor 25-cycle currents.

- Prices include 10-foot connecting cord with socket plug, ammeter, battery leads and two clips. Length, 7 inches, width, 5 inches, height 7 inches.
63 E 6193—Charges 6-volt battery at 7 amperes rate. Shipping weight, 10 pounds. Price delivered, each.....\$15.00
63 E 6191—Charges 12-volt battery at average rate of 5 amperes. Shipping weight, 14 pounds. Price delivered, each.....\$15.00

Storage Battery Charging Panel

For use with 30-32 volt Farm Electric Plant Current. Charges one to five 6-volt batteries, or their equivalent in combinations of 6 and 12 volts, from 32-volt Farm Electric Plant current. Simple to operate. Complete instructions furnished. Just attach to line and hook on the batteries. Rheostat controls current. Ammeter indicates charging rate. Fuse protects Farm Plant side. Cost of charging batteries is but a few cents. Slate panel size, 10 1/4 inches with brackets for mounting on wall. Shipping weight, 20 pounds.

- 463 E 520—Price, complete.....\$17.95

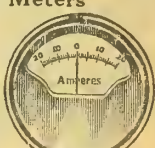
Charging Clips

Made of special steel heavily lead coated. Provide perfect connection to battery terminals at all times. Will not develop resistance to current even after long use. Length, 1 3/8 inches. Shipping weight, 2 pounds per dozen.
63 E 6197—Charging Clips. Price, dozen.....\$1.68

Switch Board Meters

For Direct Current Only

Switch board meters for use on small switch boards, farm lighting plants, etc. Are durable and accurate. Large, easily read figures. Nickel-plated cases. Diam. 2 1/4 in. Ship. wt., 5 oz. Brass posts, 3/4 in. long project from back so that meter can be fastened on a slate board.
63 E 2554—Ammeter scaled 0 in center. Shows charge or discharge up to 20 amperes. Price, each.....\$1.65
63 E 2556—Voltmeter scaled 0 to 12 volts. Price, each.....\$1.65



GASOLINE BLOW TORCHES AND QUALITY PLIERS

Gasoline Blow Torch

One of the finest and most popular Blow Torches on the market. Tank of polished brass. Special bronze burner. Improved air pump. Produces a solid blue flame generating about 1500 degrees (Fahrenheit). Easily regulated. A fine torch for electricians and linemen. Also suitable for paint burning, thawing out pipes, and for plumbers, tinners, etc. Has removable solder iron holder.

- 63 E 5864—Blow Torch. Capacity, 1 pint. Shipping weight, 3 pounds. Price, each.....\$4.50
63 E 5866—Blow Torch. Capacity, 1 quart. Shipping weight, 4 pounds. Price, each.....\$5.48

Baby Gasoline Torch

For difficult work in a tight corner. The smallest practical torch made. Lights with a match. Perfect and powerful. Burns without air pressure. A simple automatic tool with nothing to get out of order or to be replaced. Tank is only 2 1/2 inches high and 1 3/4 inches in diameter. Requires no pump. Always ready for use. Will burn steadily for one hour on one filling of gasoline. Shipping weight, 6 ounces.

- 63 E 5860—Baby Gasoline Torch. Price, each.....\$1.60

High Grade Pliers



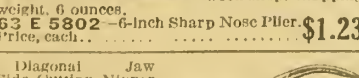
Side Cutting Pliers. Forged from best quality steel. A good tool for linemen and electricians. Shipping weight, 4 to 10 ounces.
63 E 5810—5-inch Plier. Price, each.....\$.99
63 E 5812—6-inch Plier. Price, each.....\$1.10
63 E 5814—7-inch Plier. Price, each.....\$1.28



Klein's Pattern Side Cutting Pliers. Have large opening in back for cutting insulated wire. Drop forged from highest quality steel. Finely finished. Carefully tempered. Length, 8 3/4 inches. Shipping weight, 1 pound.
63 E 5818—Price, each.....\$1.98
63 E 5819—Same style plier 6 inches long. Shipping weight, 1 pound. Price, each.....\$1.48



A high grade Hardened Steel Plier. Used a great deal on all electrical work. Handy around any work shop. Shipping weight, 6 ounces.
63 E 5802—6-inch Sharp Nose Plier. Price, each.....\$1.23



Diagonal Jaw Side Cutting Nipper. Best hardened tool steel. This tool will do perfectly the work for which it is intended. Length, 5 inches. Shipping weight, 4 ounces.
63 E 5808—Price, each.....\$1.28

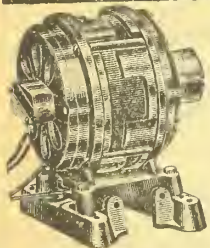
LABOR SAVING ELECTRIC POWER EQUIPMENT

Handy Utility Motor Outfit

This motor will be found very useful around house, workshop or barn. Can be attached to washing machine, grindstone, pump, fan mill or any other machine requiring not over 1/4 H.P. This outfit will do many odd jobs that it will pay for itself in a short time. By means of the handle on top, it can be carried easily to any place you want to use it. Motor is mounted on a special iron tripod base with rubber caps on ends of legs to prevent slipping. An adjustable rod with clamp for attaching to machine to be driven is provided to keep the belt tight. Fitted with 15-ft. cord and plug for attaching to lighting socket. Motor revolves at a speed of 1750 R.P.M. Fitted at one end with a combination grooved and flat pulley, diameter 2 inches, revolving at 1750 R.P.M. At the opposite end is a reducing gear fitted to combination pulley revolving at 290 R.P.M. This combination pulley has two flat pulleys and 2 grooved pulleys, diameters 4 and 2 inches each. All grooved pulleys take 1/2-inch round belt and flat pulleys take 1-inch flat belt. This combination of speeds and pulleys make it possible to drive nearly any slow revolving machine with the regular pulleys supplied on it. Ship. wt., 75 lbs.

163 E 225 — Utility Motor Outfit for use on Farm Electric Plant Current of 30 to 32 volts. Price..... \$39.50
163 E 230 — Utility Motor Outfit for use on 110-volt, 60-cycle alternating (central station) current. Price..... \$39.50

SINGLE PHASE INDUCTION MOTOR



We Prepay the Freight Charges on These Motors

\$27.00

The price we quote is all you pay. Besides quoting a very attractive price on these high quality motors we prepay the transportation charges on freight shipments east of the Rocky Mountains. These motors are especially adapted for operating machinery which requires not over 150 per cent of the power rated to start the load. Equipped with high grade ball bearings. Have a 150 per cent starting torque, yet because of design they require less starting current than most single-phase motors. Maximum temperature rise 40 degree C. on full load. No windings on rotor. 1/4 and 1/2 H.P. have centrifugal starting switch mounted on motor as shown in cut but do not have sliding rails. 1 H.P. and larger have sliding rails and have special double throw starting switches. Run either direction. Speed 1800 R. P. M.

Shipped promptly from Factory in St. Louis, Missouri.

We do not recommend these motors for water pump duty or for use where the starting load is heavy. See Induction Repulsion Motors on this page.

For 60 Cycle Single Phase Alternating Current

Order voltage wanted by article number.

| H. P. | Volts | Article Number | Price | Pulley Diam. In. | Face In. | Ship. Wt. Lbs. |
|-------|-------|----------------|---------|------------------|----------|----------------|
| 1/4 | 110 | 263E215 | \$27.00 | 2 1/2 | 1 1/2 | 46 |
| 1/2 | 110 | 263E216 | 50.50 | 3 | 2 | 71 |
| 1 | 110 | 263E217 | 66.00 | 3 1/2 | 2 1/2 | 121 |
| 1 1/2 | 110 | 263E218 | 66.00 | 3 1/2 | 2 1/2 | 121 |
| 2 | 110 | 263E219 | 89.00 | 4 | 3 1/2 | 172 |
| 3 | 110 | 263E220 | 125.00 | 4 | 3 1/2 | 202 |
| 5 | 110 | 263E221 | 185.00 | 4 | 3 1/2 | 202 |
| 7 1/2 | 110 | 263E222 | 255.00 | 4 | 3 1/2 | 202 |
| 10 | 110 | 263E223 | 315.00 | 4 | 3 1/2 | 202 |

Compensators for Starting Three Phase Motors

For use in starting heavily loaded motors where Y-Delta wiring will not provide proper starting conditions. These compensators are equipped with low voltage release and overload relay. Shipped promptly from Factory in St. Louis, Mo. We prepay transportation charges on freight shipments.

| Article Number | For Use With Motors | Price | Ship. Wt. Lbs. |
|----------------|---------------------|---------|----------------|
| 263E3301 | 263E3358 | \$39.50 | 225 |
| 263E3302 | 263E3359 | 85.00 | 225 |
| 263E3303 | 263E3360 | 95.00 | 225 |
| 263E3304 | 263E3361 | 95.00 | 225 |
| 263E3305 | 263E3362 | 95.00 | 225 |
| 263E3306 | 263E3363 | 95.00 | 225 |
| 263E3307 | 263E3364 | 95.00 | 225 |
| 263E3308 | 263E3365 | 95.00 | 225 |
| 263E3309 | 263E3366 | 95.00 | 225 |
| 263E3310 | 263E3367 | 95.00 | 225 |
| 263E3311 | 263E3368 | 95.00 | 225 |
| 263E3312 | 263E3369 | 95.00 | 225 |
| 263E3313 | 263E3370 | 115.00 | 300 |



For use in places where liquid such as water and milk are liable to be splashed on to it. Water cannot hurt it. Ends are carefully enclosed to exclude entirely any ordinary splash, yet are arranged to allow free air circulation for cooling. This motor will provide electric power for a great variety of small machines. With it most any hand power washer with a revolving balance wheel easily can be made into an electric. The cream separator, churn, ice cream freezer and similar machines can be driven with it. Can be attached to any lighting socket. Fitted with 10-foot cord and arched plug which has a speed of about 1450 R. P. M. Develops better than 1/4 H.P. power and will carry a temporary 50 per cent overload with but slight raise in temperature. Grooved pulley, effective diameter 1 1/4 inches for 1/2-inch round belt. Shaft diam. 1/2 in. Ship. wt., 39 pounds.

| Article | For | Price |
|-----------|--|---------|
| 463 E 200 | For 110-volt, 60-cycle, alternating current. | \$19.50 |
| 463 E 201 | For 110-volt, 25-cycle, alternating current. | 20.50 |
| 463 E 202 | For 220-volt, 60-cycle, alternating current. | 20.95 |
| 463 E 203 | For 32-volt direct current. | 20.95 |
| 463 E 204 | For 110-volt direct current. | 22.50 |
| 463 E 205 | For 220-volt direct current. | 22.50 |

BELTS AND PULLEYS

When ordering a motor less than 1 H.P. it is very essential that you determine whether the pulley supplied will run your machinery at the proper speed. The pulleys supplied with our motors are the ones most commonly used but for those who require pulleys of a different size, we can supply them as listed below. To find what size pulley you should use, multiply the diameter in inches of the pulley on the machine to be driven by its required revolutions per minute (R. P. M.) and divide by the R. P. M. of the motor. The result gives you the diameter in inches of the pulley you should use on your motor.

Flat Flanged Pulleys

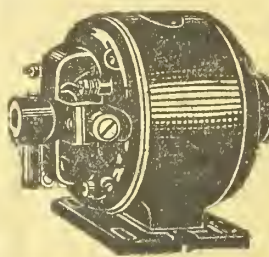
Cast pulleys with flanged sides for flat belting. Fit 1/2-in. shaft. Ship. wt., 1 lb.
63 E 6010 — 1 1/4-in. diam., 1 1/4 in. face.... 80c
63 E 6011 — 1 1/2-in. diam., 1 1/4 in. face.... 80c

Grooved Pulleys

Cast pulleys for 1/2-in. round leather belting. Fit 1/2-in. shaft. Ship. wt., 1/2 to 1 lb.
63 E 6001 — 1-in. Diameter. Price Each 75c
63 E 6002 — 1 1/4-in. Diameter.
63 E 6003 — 1 1/2-in. Diameter.
63 E 6004 — 2-in. Diameter.
63 E 6005 — 2 1/4-in. Diameter.

Round Leather Belting

For running washing machines, churns, cream separators, etc., with motor having 1/4-inch grooved pulley. Especially prepared, durable and strong. Cut any length desired. 1/2-in. diam. Ship. wt., per foot, 2 ounces. 18c
63 E 2602 — Price, per foot.
63 E 2603 — Coupling for 63E2602 Round Belting. Ship. wt., 2 ounces. Price.... 20c



DIRECT CURRENT MOTORS

For 32-Volt and 110-Volt Direct Current
Open frame type providing plenty of ventilating space—which insures cool running. Efficient in design and constructed to stand continuous service. The ratings given are conservative and we guarantee that these motors will deliver the full rated power. 1/4 and 1/2 H.P. have round belt pulleys. Can be attached to any lighting socket. 1/2 H.P. has flat belt pulley. Must have special wiring. Speed about 1750 R.P.M.

| H. P. | Volts | Article Number | Price | Pulley Diam. In. | Belt Size Inches | Ship. Wt. Lbs. |
|-------|-------|----------------|--------|------------------|------------------|----------------|
| 1/4 | 32 | 463 E 250 | \$7.85 | 1 1/4 | 1 1/4 | 25 |
| 1/2 | 110 | 463 E 260 | 17.85 | 1 1/4 | 1 1/4 | 25 |
| 1/2 | 32 | 463 E 251 | 18.75 | 1 1/4 | 1 1/4 | 30 |
| 1 | 110 | 463 E 261 | 18.75 | 1 1/4 | 1 1/4 | 30 |
| 1 | 32 | 463 E 252 | 39.50 | 2 1/4 | 1 1/4 | 56 |
| 1 1/2 | 110 | 463 E 263 | 39.50 | 2 1/4 | 1 1/4 | 56 |

INDUCTION REPULSION MOTORS

These motors are especially desirable for operation on lighting circuits where apparatus requires a heavy starting pull. They draw a comparatively low amperage from the line when starting yet have a starting torque of over 200 per cent of the full load torque and accelerate rapidly. These characteristics distinguish them from the split-phase type of motors and make them especially desirable for operating pumps, cream separators and machines starting under a heavy load. Highest grade S. K. F. ball bearings, slide rails on 1/2 H.P. and larger sizes. Black enamel finish. Wound rotor. Copper bar commutator with rugged short circuiting device.

Shipped promptly from Factory in St. Louis, Mo.
The price we quote is all you pay. We prepay transportation charges on freight shipments east of Rocky Mountains. A big saving for you on a high quality motor.

Price List Induction Repulsion Motors for 60 Cycle Current Interchangeable 110 or 220-volt, 60-cycle, single-phase alternating current. Order horse power and speed wanted by article number.

| H. P. | Speed (R.P.M.) | Article No. | Price | Pulley Diam. In. | Face In. | Ship. Wt. Lbs. |
|-------|----------------|-------------|---------|------------------|----------|----------------|
| 1/4 | 1800 | 263E328 | \$44.00 | 2 1/2 | 1 1/2 | 67 |
| 1/2 | 1800 | 263E329 | 64.00 | 3 | 2 | 102 |
| 1 | 1800 | 263E330 | 76.00 | 3 1/2 | 2 1/2 | 137 |
| 1 1/2 | 1800 | 263E331 | 86.00 | 3 1/2 | 2 1/2 | 160 |
| 2 | 1800 | 263E332 | 126.00 | 4 | 3 1/2 | 230 |
| 3 | 1800 | 263E333 | 153.00 | 5 | 5 | 352 |
| 5 | 1800 | 263E334 | 198.00 | 5 | 5 | 432 |
| 7 1/2 | 1800 | 263E335 | 255.00 | 5 | 5 | 432 |
| 10 | 1800 | 263E336 | 315.00 | 5 | 5 | 432 |

We Pay Freight Charges on These Motors

Induction Repulsion Motors for 25 Cycle Current

Interchangeable 110 or 220-volt, 25-cycle, single-phase alternating current. Speed 1500 R.P.M. Order horse power by article number.

| H. P. | Article Number | Price | Pulley Diam. In. | Face In. | Ship. Wt. Lbs. |
|-------|----------------|---------|------------------|----------|----------------|
| 1/4 | 263E315 | \$79.00 | 3 1/2 | 2 1/2 | 137 |
| 1 | 263E317 | 116.00 | 4 | 3 1/2 | 206 |
| 1 1/2 | 263E319 | 160.00 | 5 | 5 | 352 |
| 2 | 263E321 | 208.00 | 5 | 5 | 432 |

ELECTRIC METERS BUFFER AND GRINDER



Fine quality meters. 3 1/4-inch face. Black enamel finish. Very accurate and sturdy. Two 1 1/2-in. posts with nuts and washers project from back for "front of board" mounting. Shipping weight, 2 pounds. Direct current instrument is D'Ars on v a l pattern. Alternating current instrument is very accurate and well damped.

Direct Current Volt Meters

| Art. No. | Scale | Price |
|----------|-------|--------|
| 63E6250 | 0-3 | \$6.46 |
| 63E6252 | 0-15 | 6.45 |
| 63E6254 | 0-30 | 6.45 |
| 63E6256 | 0-50 | 6.45 |
| 63E6260 | 0-150 | 8.50 |

Direct Current Ampere Meters

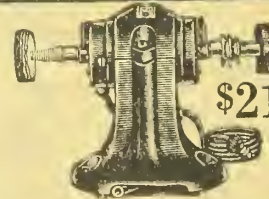
| Art. No. | Scale | Price |
|----------|--------|--------|
| 63E6285 | 0-5 | \$6.45 |
| 63E6287 | 0-15 | 6.45 |
| 63E6289 | 0-30 | 6.45 |
| 63E6295 | 30-60 | 6.45 |
| 63E6299 | 60-100 | 7.90 |

Alternating Current Volt Meters

| Art. No. | Scale | Price |
|----------|-------|--------|
| 63E6281 | 0-20 | \$6.75 |
| 63E6282 | 0-30 | 6.75 |
| 63E6283 | 0-150 | 8.90 |
| 63E6284 | 0-300 | 9.85 |

Alternating Current Ampere Meters

| Art. No. | Scale | Price |
|----------|-------|--------|
| 63E6286 | 0-5 | \$6.75 |
| 63E6287 | 0-15 | 6.75 |
| 63E6288 | 0-20 | 6.75 |
| 63E6289 | 0-30 | 6.75 |



\$21.50

Operates on 110 to 130 Volt Alternating or Direct Current

A combination grinder and polisher for heavy duty work. Has 1/4 H.P. motor which provides enough power to drive a variety of small machines. Runs at 3000 to 5000 R.P.M. under load. Spindle at one end of shaft to take buffing wheel, pulleys and emery wheel at other. Pulleys have effective diameter of 1 and 1 1/4 inches. Emery wheel is 2 1/4 inches. Height over all, 8 in. Length, 11 1/2 inches. Ship. wt., 20 lbs.

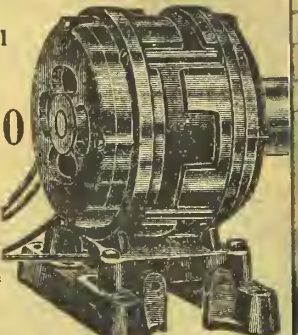
463 E 465 — Complete with buffing wheel, emery wheel, wax for buffer, 9 ft. attaching cord and rheostat for varying speed in base. Price..... \$21.50

THREE PHASE INDUCTION MOTOR

Squirrel Cage Type

\$43.00

We Pay the Freight Charges on These Motors



We guarantee these motors to equal in performance any make of motor regardless of price. The prices we quote are very low but on freight shipments you make an additional saving as we prepay transportation charges east of the Rocky Mountains. On express shipments we will make allowance equal to what freight charges would be.

These power motors incorporate the modern features of construction. Very efficient at both full and light loads. Their high power factor makes them very desirable from the central station viewpoint. They are all fitted with high grade ball bearings. The temperature rise is 1 and is guaranteed to be not over 40 degrees centigrade rise on continuous load operation. Can be wired to operate in either direction. Guarantee to meet the specifications of the American Institute of Electrical Engineers and are further guaranteed for a period of one year to be free from any electrical or mechanical defects. They have a starting torque (or pull) of over 200 per cent of the full load torque which well adapts them for use on pumps and other work having a heavy starting load.

Prices include pulley and adjustable sliding belt on all motors. Prices do not include starters. Sizes 5 H.P. and larger. Motors are furnished with six leads brought out so that the motors can be started by the use of the Y-Delta starting arrangement. If the Y-Delta starting arrangement will not provide satisfactory starting condition then any standard compensator may be used. Suitable compensators listed on this page.

Shipped promptly from Factory in St. Louis, Mo.

Three-Phase Induction Motors

For 220-volt, 60-cycle Alternating Current.

| H. P. | Speed (R.P.M.) | Article No. | Price | Pulley Diam. In. | Face In. | Ship. Wt. Lbs. |
|-------|----------------|-------------|---------|------------------|----------|----------------|
| 1/4 | 1800 | 263E336 | \$43.00 | 2 1/2 | 1 1/2 | 67 |
| 1 | 1800 | 263E337 | 66.00 | 3 | 2 | 102 |
| 1 1/2 | 1800 | 263E338 | 77.00 | 3 1/2 | 2 1/2 | 137 |
| 2 | 1800 | 263E339 | 87.00 | 3 1/2 | 2 1/2 | 160 |
| 3 | 1800 | 263E340 | 126.00 | 4 | 3 1/2 | 230 |
| 5 | 1800 | 263E341 | 153.00 | 5 | 5 | 352 |
| 7 1/2 | 1800 | 263E342 | 198.00 | 5 | 5 | 432 |
| 10 | 1800 | 263E343 | 255.00 | 5 | 5 | 432 |
| 15 | 1800 | 263E344 | 315.00 | 5 | 5 | 432 |
| 20 | 1800 | 263E345 | 352.00 | 5 | 5 | 432 |
| 25 | 1800 | 263E346 | 352.00 | 5 | 5 | 432 |
| 30 | 1800 | 263E347 | 352.00 | 5 | 5 | 432 |

Two Pole, 1500 R.P.M. Three Phase Induction Motors for 220 Volt, 25 Cycle Alternating Current

25-cycle motors are not carried in stock but factory is now in very good shape for making delivery and we guarantee shipment within days after receipt of order. We cannot accept cancellation of orders for 25-cycle motors after we have started nor can they be returned for credit exchange when made according to specifications. Be sure to order correct motor for your current.

| H. P. | Article Number | Price | Pulley Diam. Inches | Pulley Face Inches | Ship. Wt. Lbs. |
|-------|----------------|---------|---------------------|--------------------|----------------|
| 1/4 | 263E340 | \$52.00 | 2 1/2 | 1 1/2 | 67 |
| 1 | 263E341 | 66.00 | 3 | 2 | 102 |
| 1 1/2 | 263E342 | 77.00 | 3 1/2 | 2 1/2 | 137 |
| 2 | 263E343 | 87.00 | 3 1/2 | 2 1/2 | 160 |
| 3 | 263E344 | 126.00 | 4 | 3 1/2 | 230 |
| 5 | 263E345 | 153.00 | 5 | 5 | 352 |
| 7 1/2 | 263E346 | 198.00 | 5 | 5 | 432 |
| 10 | 263E347 | 255.00 | 5 | 5 | 432 |
| 15 | 263E348 | 315.00 | 5 | 5 | 432 |
| 20 | 263E349 | 352.00 | 5 | 5 | 432 |
| 25 | 263E350 | 352.00 | 5 | 5 | 432 |

Buffer and Grinder



\$10.95

Operates on 110-volt current either direct or alternating. Develops 1/20 H.P. at speed of 3000 R. P. M. under load. Has sufficient power to operate window displays, sign flashers, 8-inch buffing wheels, rotary spark gaps and small induction motors. Motor with spindle at one end of shaft to take buffing wheel. To other end shaft is fastened emery wheel and two pulleys in 1 and 1 1/4 in. diameter. Length over all, 8 in. Supplied with buffing wheel, emery wheel, wax for buffer, 3-foot attachment cord and plug. Price, including emery wheel and buffer can be obtained on request. Price, including emery wheel and buffer. \$10.95

Powerlite Electric Plant

For Farm or Country Places

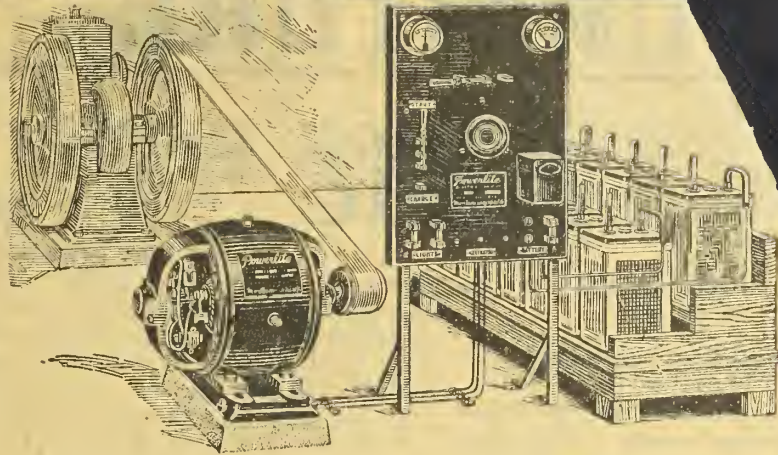
All the Comforts and Conveniences that Electric Light and Power Can Bring is Yours for Only

\$227.00

Powerlite Belted Electric Plants are designed especially to produce electric current at a low cost for farm homes, small hotels, stores, garages, country places, churches, etc.

Powerlite Belted Plants consist of three parts, the Battery, Switchboard and Generator connected with the necessary wires. These three parts together with a gasoline or kerosene engine give you a dependable working plant at low cost—one that will give constant service at any hour of the day or night.

Powerlite Belted Plants are not an experiment but are fully developed Electric Light and Power Plants designed to give continuous and satisfactory service for many years.



Operated with Any Farm Engine

If you already have an engine 2½ H.P. or larger which you use for other purposes you can belt the generator of the Powerlite Plant to the fly wheel of your engine and charge your battery while your engine is doing other work. In this way the cost of current to you is very little. If you have no engine, we recommend one of our Satisfactory Gasoline or Kerosene Engines which are fully described on pages 558-561 of this catalog.

Simplicity is One Big Feature

Our Powerlite Plants are the highest type of electrical equipment for the purpose so simplified that anyone can operate them. There are no complicated parts to get out of order, nothing to demand expert attention.

When you want to recharge the batteries, start your engine by means of the starting switch. Hand cranking is not necessary. The lights may be used while the battery is being recharged if you wish. Instructions written in plain terms so that anyone can understand them are furnished with every plant. You do not have to know anything about electricity to install and operate our Powerlite Plants.

Easy to Install and Operate

The plant is shipped to you so that it is ready to use when you receive it. The batteries come to you fully charged. Connect up the wires from switchboard to the batteries and from the switchboard to the generator and house wires and you can then turn on your lights. These few connections are plainly marked so that there is no chance of making them other than correctly.

After the plant is set up any member of the family who knows anything about farm machinery can operate it.

High Quality—Substantial Savings

In the manufacture of Powerlite Plants, quality and dependability are the big points at which we have aimed. The result is a plant equal to any and superior to many. Our aim is to sell you the best built plant rather than the cheapest. Our interest does not stop with your purchase of a plant. At all times we will render you any service you may require to get the most complete satisfaction from it.

Powerlite Belted Electric Plant Complete consists of—

Powerlite Storage Battery consisting of 16 cells of capacity stated and fully covered by our guarantee on this page.

Generator, 40-volt, 25 ampere, speed 1,800 R.P.M. as described and illustrated on this page.

Switchboard as described and illustrated on this page.

Necessary Wiring to connect the above 3 units.

Battery Hydrometer.

Speed Indicator.

Endless Leather Belt, 2 inches wide, 14 feet long.

Five Extra Fuses.

Screws, Bolts and Cleats to secure generator, switchboard and connecting wires to floor or wall.

Complete instructions for installation and operation.

Battery rack illustrated is not included. Blue-print giving dimensions of suitable rack included. Price includes parts as listed but does not include engine shown in illustration.

Plant with Large Size Battery

163 E 181—Powerlite Belted Plant, complete with 80 ampere hour 32-volt storage battery. (Intermittent rating, 120 ampere hours) Shipping weight, 870 pounds.

If you wish to pay cash in full with order the price is **\$227.00**
Easy Payment Terms are \$54.00 cash with the order and \$19.00 per month for 10 months (no interest). Total Price.....**\$244.00**

Plant with Extra Large Size Battery

163 E 187—Powerlite Belted Plant, complete with 160 ampere hour 32-volt storage battery. (Intermittent rating 240 ampere hours) Shipping weight, 1,170 pounds.

If you wish to pay cash in full with order the Price is **\$290.00**
Easy Payment Terms are \$62.00 cash with order and \$25.00 per month for 10 months (no interest). Total Price.....**\$312.00**

When placing your order give speed of engine and diameters of fly wheel and driving pulley.

All parts shipped promptly from stock.

If you desire to take advantage of our easy payment plan, please send for full details which will be furnished by return mail.

The Powerlite Generator



The Generator furnished with our Powerlite Plant is a large sturdy machine with a capacity of 40 volts 25 amperes—1,000 watts when operated at a speed of 1,800 R.P.M. It is of the four-pole type, insuring high efficiency, continuous service and an even flow of current.

The rating given is the continuous load capacity and the generator can deliver 25 per cent more current than its rated capacity, without excessive heating. Has large ring oiling bearings cast from heavy, high grade, special composition metal. This generator will last a lifetime under ordinary conditions and requires no attention other than oiling every month and having brushes renewed every few years.

The direction in which the generator should be driven is clearly marked on the top. Equipped with a sliding base so that the belt slack can be taken up without the floor fastenings.

Get the best results from your plant it is important that this generator be operated at the proper speed (1,800 R.P.M.). In order to determine what size pulley you should have, we must know the speed of your engine, also the diameters of the fly wheel driving pulley. Give us this information when sending your order and we will supply the pulley on the generator of the proper size without extra charge.

Standard pulley equipment: Diameter, 4 inches, face, 4 inches. Shipping weight of generator complete, 150 pounds.

Price of Generator Separately

We can supply the generator of our Powerlite Plant separately. It can be used with or without the switchboard for charging automobile storage batteries, running motors, etc.

E 189—Generator only, as described above. Price **\$71.00**
E 1200—Field Rheostat for use with above generator. Price **\$6.95**

When ordering a complete Powerlite Plant, an extra rheostat is necessary, as the switchboard of Powerlite Plants is equipped with a rheostat.

Robbins and Myers Farm Power Motor

\$34.95



If you have an electric plant of 30-32 volts with 15 or 16 cell storage battery you can use this motor to do much of the work around the house, workshop or garage. Use it for operating the washing machine, cream separator, churn, grindstone, pump, fanning mill and other light machines requiring not more than ½ H.P. for operation.

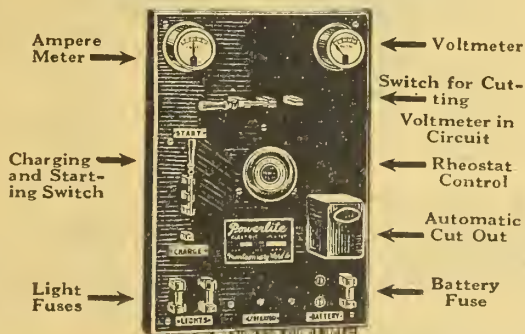
Made by the Robbins and Myers Company who have a national reputation for making high grade motor driven appliances of all kinds, this motor, at our price, is a real bargain.

The motor is back-gear which reduces the speed from 1150 R.P.M. to a pulley speed of 285 R.P.M. This makes it unnecessary to crank the engine (if not over 5 H.P. size) by hand. This same switch is also used to connect the generator and battery during the charging periods.

The **Light Fuses** are placed in the line circuit. Their function is to protect the battery from too great a discharge, caused by short circuits on the line, etc. The cases of the fuses are of glass, making it easy to see when they have "blown."

Battery Fuse is placed between generator and battery.

The Powerlite Switchboard



On the switchboard are mounted the necessary instruments to control the operation of the plant and indicate the flow and pressure of the current. The board itself is made of oil finished black Marine plate of the best quality and highest insulating properties. Size, 24 x 16 inches. All instruments used are of the finest quality.

The Voltmeter indicates the voltage or pressure of the current. The voltmeter switch cuts the voltmeter out of the circuit when reading is not desired. This saves considerable current and is one of the features of this switchboard.

The Amperemeter indicates the amperes or amount of current flowing into or out of battery. When the generator is charged it indicates the rate of charge, when current is being used it indicates the rate of discharge.

The Rheostat enables you to regulate the amount of current generated by the generator. Simply turning the hand control raises or lowers the voltage and amperage of the current as desired.

The Automatic Circuit Breaker is the heart of the plant. The instrument used on our plants is most dependable at all times and will operate satisfactorily indefinitely.

The Charging and Starting Switch enables you to use your generator as a motor in cranking your engine, making it unnecessary to crank the engine (if not over 5 H.P. size) by hand. This same switch is also used to connect the generator and battery during the charging periods.

The Light Fuses are placed in the line circuit. Their function is to protect the battery from too great a discharge, caused by short circuits on the line, etc. The cases of the fuses are of glass, making it easy to see when they have "blown."

Battery Fuse is placed between generator and battery.

Price of Switchboard Separately

We can supply our Powerlite Switchboard separately if desired. Shipping weight, 45 pounds.

163 E 193—Switchboard for floor mounting or wall mounting. Price.....**\$49.00**

Read What Users Think of Powerlite Plants

I bought my plant from you after comparing your plant with plants sold by agents and know that I saved at least \$150 to \$200 by doing so. The plant is doing fine and requires almost no attention which is more than can be said for some of the light plants in this neighborhood.

Fred E. Anderson,
Purcell, Colo.

Used by permission.

Buy a Powerlite Electric Plant and you will be as satisfied with its service as are these two users who voluntarily told us about the results they are obtaining from Powerlite Plants they purchased.

After having acetylene gas in the home for sixteen years we decided to put in Electricity for better light and for other conveniences. I chose the Powerlite because I wanted a belt drive with which I could use any engine. I think the Powerlite is as good as any on the market and a great saving in cost.

Lloyd Carr,
R. F. D. 62,
Sheela, Ill.

Used by permission.

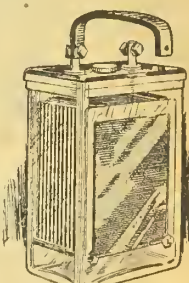
The Powerlite Battery

Extra Heavy Plates

The storage battery is for the purpose of storing current so that lamps can be lighted or electrical appliances operated when the generator is not running.

The batteries supplied with our Powerlite Plants are equal or superior to any others on the market. They are the pasted plate type, sealed in glass jars. The plates are extra large and heavy and the extra large sediment space beneath the plates lengthens the life of the battery. They are shipped to you fully charged so that when you receive your plant and set it up, it is ready for service.

If you already have an Electric Plant and your original set of batteries has become exhausted, order a set of these batteries. They will replace the original storage batteries of any make or type 32-volt Farm Electric (Lighting) Plants. They work satisfactorily no matter what make of batteries was originally with the plant. Price includes 16 complete cells of batteries together with the necessary connecting bolts and straps. All sets carefully crated and packed. We guarantee safe delivery. Shipping weights, 520 and 900 pounds.



Prices on Powerlite Batteries Separately

| Article Number | Battery Size | | Price Complete Set | No. of Plates | Size Plates Inches |
|----------------|-------------------------------|-----------------------------|--------------------|---------------|--------------------|
| | 8-hr Discharge Rating Amp. Hr | Intermittent Rating Amp. Hr | | | |
| 163 E 141 | 80 | 120 | \$ 95.00 | 7 | 5 3/4 x 7 |
| 163 E 144 | 160 | 240 | 158.00 | 11 | 5 3/4 x 8 3/4 |

Battery 163E141 has a capacity of 2,560 watts and will light 16 20-watt lamps for 8 hours. Battery 163E144 has a capacity of 5,120 watts or just twice as much as 163E141 battery.

Our Battery Guarantee

We guarantee these batteries to give lighting service for 5 years, when installed and operated according to our instructions, and when they are recharged not oftener than twice a week. If for any reason the battery proves defective or does not give good service within the 5 years' period we will replace it on the basis of service rendered. If for example, some part of or the whole battery, should prove defective at the end of two years we will replace it for 3/4 of the cost of a new battery. If the battery should last only one year, we would replace it for 1/2 of the cost of a new battery, etc. In this way, you are assured that you will only be obliged to pay for the actual service you get from your battery.

While our guarantee applies for only 5 years, these batteries, when properly cared for will give even longer service.

Please lend this book to your friends and neighbors

Montgomery Ward & Co Chicago

589



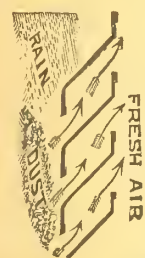
Prairie Window Ventilator

Fresh Air Without a Draft. For Offices, Schools and Homes.

It allows plenty of fresh air, throws the air to the ceiling, prevents drafts and keeps out the elements. Can be locked in place and keeps the house burglar proof. Made of good, strong metal, finely finished in brown baked enamel. Simple in construction and adjustable to all windows.

Shipped from Chicago Factory.

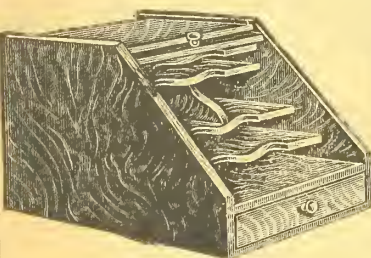
257 E 9744—Eight inches high, 22 inches in width, and adjustable to 36-inch width. **\$4.25**



257 E 9745—Twelve inches high, 22 inches in width and adjustable to 36 inches in width. **\$5.00**

257 E 9746—Eight inches high, 22 inches in width and adjustable to 50 inches in width. **\$6.50**

Rain and Dust Excluded Only Fresh Air Enters



Keep Your Stationery in a Cabinet

Handily placed on desk. Holds enough stationery for current use, keeping it clean and neat. Made of quartered oak, finished Golden. Have rubber feet to prevent marring, polished surfaces. Don't be without one of these necessities. Shipping weight, 7 pounds.

257 E 9732—With drop lid. **\$6.75**

Shipped from Chicago Factory

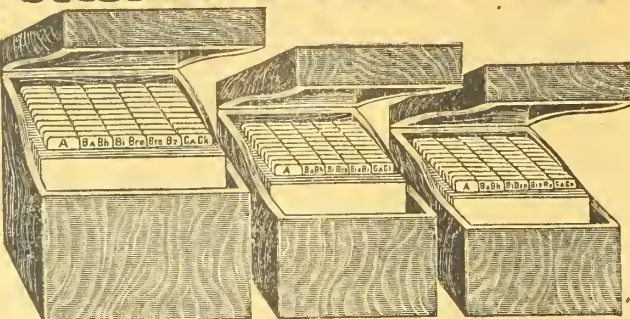


\$1.23

Fiber Waste Paper Baskets

57 E 9998—A necessity for every house, school, office, factory. Made of the finest grade of fiber varnished. It is 12 inches in diameter at the top, 10 inches in diameter at the bottom and 14 inches deep. It has a hardwood non-tipping bottom. Shipping weight, 3½ pounds. **\$1.23**

SYSTEMATIZE YOUR WORK



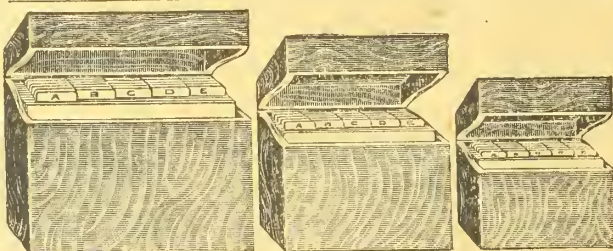
Eight-Inch Trays With Hinged Covers

Made of Quartered Oak, finished Golden, eight inches in length. Equipped with follow block to keep contents in vertical position.

57 E 9707—Size 3x5 with A to Z index and 100 ruled cards. Shipping weight 1½ pounds. **\$2.47**

57 E 9708—Size 4x6 with A to Z index and 100 ruled cards. Shipping weight 2¼ pounds. **\$2.98**

57 E 9709—Size 5x8 with A to Z index and 100 ruled cards. Shipping weight 3¼ pounds. **\$3.87**



Midget Desk Outfits

Handy, sturdy little card index boxes suitable for many indexing purposes. Made of Quartered Oak, finished Golden. Each tray equipped with set of A-Z index and 100 horizontal ruled cards.

57 E 9720—Size 3x5. Shipping weight, 3¼ pounds. **\$1.42**

57 E 9721—Size 4x6. Shipping weight, 5¼ pounds. **1.90**

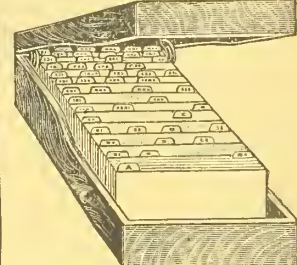
57 E 9722—Size 5x8. Shipping weight, 9 pounds. **2.75**

Note, Draft and Check File

Every one should file all cancelled checks, notes, etc., for any desired future reference. Made of Quartered Oak, finished Golden. Equipped with follow block. Guides or cards supplied only when specified. Prices of cards, see page 647. Shipping weight, 6 pounds.

257 E 9735—Size 4x9 **\$3.75**

Shipped from Chicago Factory.



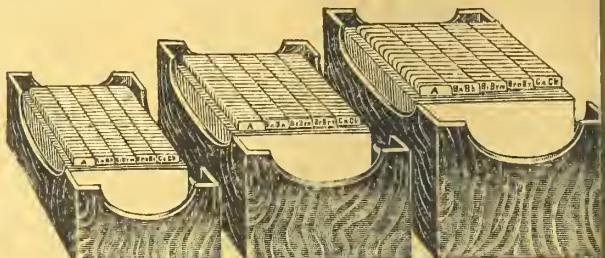
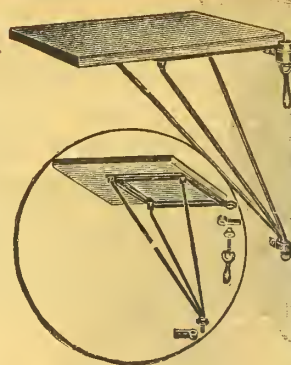
Swinging Stands Increase Desk Space

\$5.35

Can be attached to any style desk. Just the thing to hold typewriter. Swings and locks in any position. Wood tops are 14x18 inches, quartered Golden Oak. Metal frame is black enamel. Shipping weight 11 pounds.

Shipped from Chicago Factory.

257 E 9738— **\$5.35**



Nine-Inch Card Index Trays Without Covers

Made of Quartered Oak, finished Golden, nine inches in length. Equipped with follow block to keep contents in vertical position. Guides or cards supplied only when ordered. See Numbers 9664 to 9677 on page 647 for price and description of cards and guides.

57 E 9712—Size 3x5. Shipping weight, 1¼ pounds. **\$1.90**

57 E 9713—Size 4x6. Shipping weight, 2 pounds. **2.50**

57 E 9714—Size 5x8. Shipping weight, 2½ pounds. **2.90**

Furnished with A to Z index and 100 ruled cards.

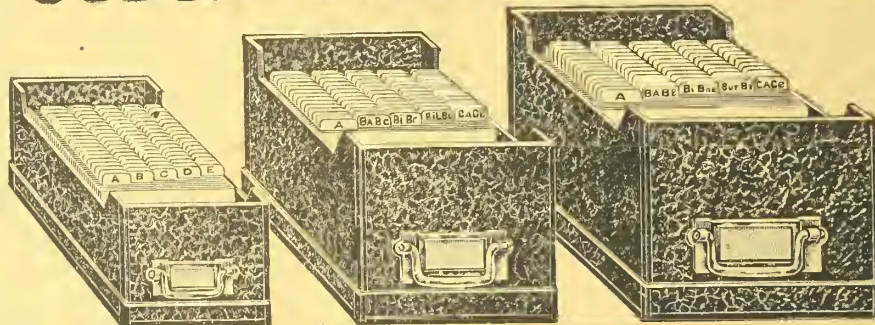
Small Card Index File

57 E 9717—Made of wood, golden oak finish and is complete with 100 white cards 3x5 inches and index.

Just the thing for a daily reminder file. Shipping weight 2 pounds. **79**



FIBRE FILING BOXES



Fiber Board Card Index Files

This system has no equal for keeping a record of costs, prices and quotations. Also for keeping a record of stocks and material. Meets the demands for a serviceable tray lower in price than wood. Made of tough binders board, covered with Agate paper. Equipped with follow block to keep contents in vertical position. Perfect fitting covers. No guides or cards supplied unless ordered. See Numbers 9664 to 9677 on page 647 for prices. Also made in size to hold cancelled checks, Number 57 E 9729.

57 E 9725—Size 3x5. Shipping weight, 1¼ pounds. **\$1.18**

57 E 9726—Size 4x6. Shipping weight, 1½ pounds. **1.42**

57 E 9727—Size 5x8. Shipping weight, 2 pounds. **1.67**

57 E 9728—Size 6x9. Shipping weight, 3 pounds. **1.89**

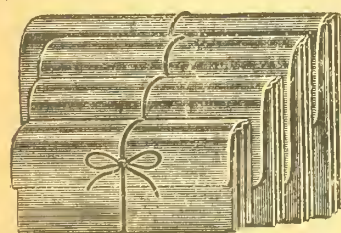
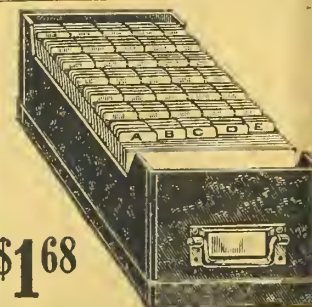
57 E 9729—Size 4x9. Shipping weight, 1 pound. (for cancelled checks) **1.67**

\$1.68

Fiber Board Index Outfit

57 E 9749—This system has no equal for keeping a record of costs, prices and quotations; also for keeping a record of stock and material.

Made of special tough fiber-board equipped with alphabetical guide cards and 50 record cards. Size 3x5. Self-feeding bottom, dustproof cover. Length, 11 inches. Width, 5½ inches. Shipping weight, 2¼ pounds. **\$1.60**



Fiberstock Expanding Envelopes

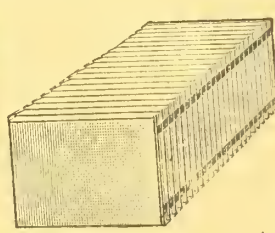
Expanding gussets are reinforced with cloth at points of greatest wear. The long flap and attached tape add to their security. 1½-inch expansion. Shipping weight for 4, 1 pound.

57 E 9764—Size 4x9¼ **68c**

57 E 9765—Size 5x11 inches 4 envelopes for **84c**

57 E 9759—Size 7x11 inches 3 for **78c**

57 E 9760—Size 9¼x11¼ inches 3 for **87c**

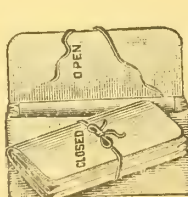


Expansion Files

Convenient for filing bills, orders and following up correspondence, etc. Well made, strong, gussets reinforced with cloth at points of greatest wear. Self front and back. Each pocket has ¼-inch capacity. Indexed A to Z. Shipping weight 8 ounces.

57 E 9754—Size 6x10¼ inches **\$1.98**

57 E 9755—Size 4¼x9¾ inches **\$1.87**



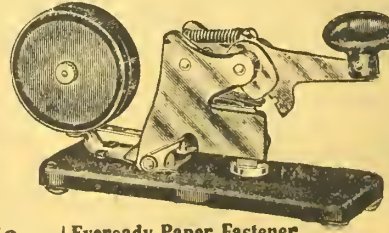
Document Envelopes

57 E 7374—Extending Document Envelopes, of extra heavy red fiber-board, with flap and tape ties. When opened is two inches wide, 4½x10¼ inches. Shipping weight, per 4 dozen, 5 ounces. **27c**



Automatic Paper Fastener

57 E 7574—Used in the manner of a ticket punch. Will fasten a number of sheets together, without the use of pins, clips, staples. Cuts, inserts and secures paper automatically. Made of steel, nickel-plated. Length, 5 inches. Shipping weight, 9 ounces. **\$2.57**

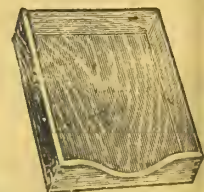


Eveready Paper Fastener

Is a compact little service machine weighing a bit over two pounds. In one operation it makes and fastens its own steel staples with a slight pressure of the handle. Self-feeding—will not clog. Attractively finished in Japan and nickel, provided with rubber silence posts, scientifically built for endurance. With one roll of Eveready Staple Tape—500 staples per roll. Shipping weight, 2½ pounds. **\$8.97**

57 E 9748— **\$8.97**

57 E 9751—Staples for the above. Roll of 3000. **.98**



Oak Letter Tray

57 E 9741—Quartered Oak, Golden finish. Height, 2½ inches. Length, 11 in. Width, 9¾ in. Shipping weight, about 2 lbs. **\$1.90**

Office Shears

57 E 7416—All nickel finish. Length 10 inches. Shipping weight, ¼ pound. **87c**

SAVE TIME and MONEY OAK FILING CASES

Sectional Check File

Made in top and bottom sections. Buy top first then add bottom sections as needs demand. Quartered Oak, finished Golden. Each drawer equipped with follow block to keep contents in vertical position; reliable holder and pull. Guides and cards must be specified.



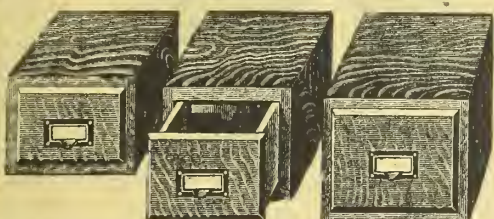
257 E 9703—Top 4x9. \$9.25
Shipping weight, 18½ pounds.
257 E 9704—Bottom 4x9. Shipping weight, 17 pounds. \$8.48
Shipped from Factory at Chicago.

Two Drawer Sectional Card Files

ESPECIALLY designed where record system is liable to expansion. Made in top and bottom sections. Purchase a top first then add as many bottom sections as record system requires from time to time. Each drawer equipped with easily adjusted auto-locking steel follow block to keep contents in vertical position. Quartered Oak, finished Golden. Guides and cards must be specified.

257 E 9681—Size 3x5 Top. Shipping weight, 11 pounds. \$7.25
257 E 9682—Size 3x5 Bottom. Shipping weight, 9 pounds. \$6.00
257 E 9683—Size 3x5 Base. Shipping weight, 9 pounds. \$4.75
257 E 9684—Size 4x6 Top. Shipping weight, 14 pounds. \$8.50
257 E 9685—Size 4x6 Bottom. Shipping weight, 11 pounds. \$7.00
257 E 9686—Size 4x6 Base. Shipping weight, 10 pounds. \$5.00
257 E 9687—Size 5x8 Top. Shipping weight, 17 pounds. \$9.50
257 E 9688—Size 5x8 Bottom. Shipping weight, 14 pounds. \$8.00
257 E 9689—Size 5x8 Base. Shipping weight, 11 pounds. \$5.25
Shipped from Factory at Chicago.

57E9703
57E9704



Single Drawer Card File

Made of Quartered Oak, finished Golden. Just the thing for a record system not liable to expansion. Equipped with follow block to keep contents in vertical position. Guides and cards must be specified.

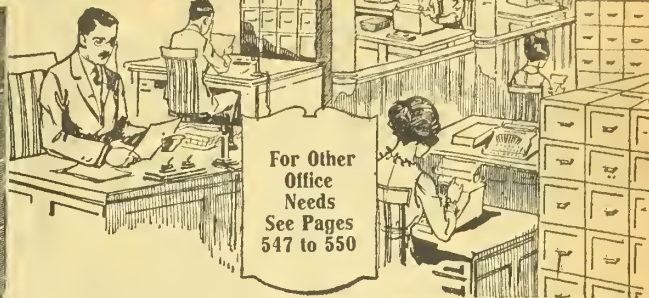
57 E 9696—Size 3x5. Shipping weight, 6½ pounds. \$4.43
57 E 9697—Size 4x6. Shipping weight, 7½ pounds. 5.43
57 E 9698—Size 5x8. Shipping weight, 10½ pounds. 6.68
57 E 9699—Size 6x9. Shipping weight, 14 pounds. 7.90
57 E 9700—Size Letter Size. Shipping weight, 20 pounds. \$10.25
Shipped from Factory at Chicago.

Two Drawer Letter File

Letter Width Drawers

Drawers inside measure 10 inches high, 12½ inches wide and 2¼ inches deep. Cabinet outside measures 29½ inches high, 15½ inches wide and 24½ inches deep. Shipping weight, 50 pounds.

57 E 9616.....\$12.95



For Other Office Needs See Pages 547 to 550

Filing Cabinet

This 4-Drawer File Will Hold 20,000 Letters

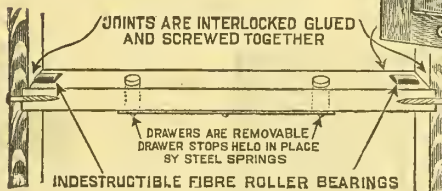
Letter Width

Made of best grade solid Oak frame. Joints are interlocked, glued and screwed, a method of construction that precludes any chance of "racking." Drawers are full height—an aid in excluding dust and roll easily on hard fiber rollers. Equipped with auto-locking copper drawer pulls and label holders. Golden Oak finish.

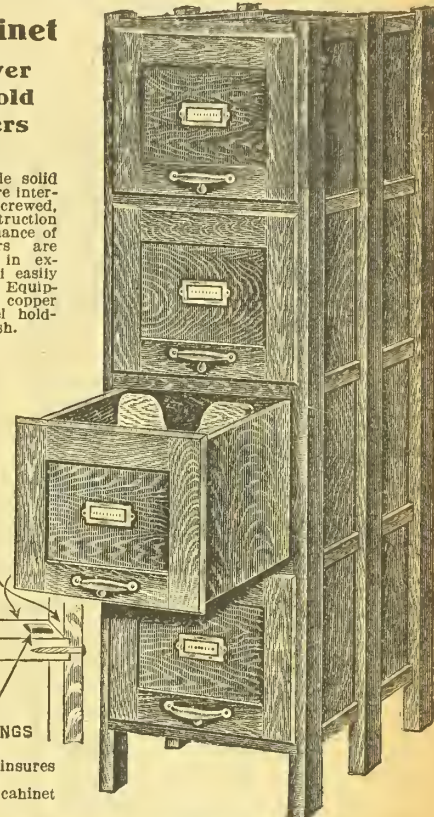
10 inches high, 12½ inches wide and 2¼ inches deep.
53 inches high, 15½ inches wide and 24½ inches deep.

Shipping weight, 100 pounds.

257 E 9615.....\$24.95
Shipped from Factory at Chicago.



Interlocked joints glued and screwed together insures strength and durability.
The indestructible fiber rollers make this cabinet drawer operate with extreme ease.



STEEL FILING CASES

Vertical Steel Files

FOR anything that must stand friction or very hard usage steel is the best. These files have roller bearings and operate very easily. Also have the maximum drawer capacity.

Drawers Inside Measurements are:
10 inches high, 12½ inches wide and 2¼ inches deep.
257 E 9619—1 drawer. \$33.67
257 E 9621—2 drawer. 18.95
Shipped from Factory at Chicago.

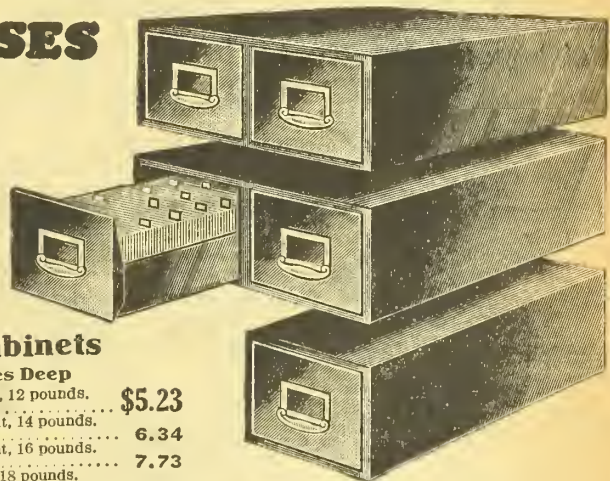
Bentson Steel Card Cabinets

Description, All Cases 14 inches Deep

257 E 9640—1 Drawer 3x5 Cards. Shipping weight, 12 pounds. \$5.23
257 E 9642—1 Drawer 4x6 Cards. Shipping weight, 14 pounds. 6.34
257 E 9644—1 Drawer 5x8 Cards. Shipping weight, 16 pounds. 7.73
257 E 9646—2 Drawer 3x5 Cards. Shipping weight, 18 pounds. 8.56
257 E 9648—2 Drawer 4x6 Cards. Shipping weight, 20 pounds. 9.65
257 E 9650—2 Drawer 5x8 Cards. Shipping weight, 22 pounds. 12.00

Description All Cases 17 inches Deep

257 E 9652—1 Drawer 3x5 Cards. Shipping weight, 13 pounds. \$5.52
257 E 9654—1 Drawer 4x6 Cards. Shipping weight, 15 pounds. 6.63
257 E 9656—1 Drawer 5x8 Cards. Shipping weight, 17 pounds. 8.87
257 E 9658—2 Drawer 3x5 Cards. Shipping weight, 18 pounds. 8.93
257 E 9660—2 Drawer 4x6 Cards. Shipping weight, 22 pounds. 9.90
257 E 9662—2 Drawer 5x8 Cards. Shipping weight, 26 pounds. 12.42
Shipped from Factory at Chicago.



Card Index Guides
Price per set

7 E 9664—Daily, cards to set, Salmon, 53c
8 E 9665—Monthly, 12 cards to set, Blue, 73c
7 E 9666—25 Divisions, A to Z, Buff, 37c
8 E 9667—40 Divisions, A to Z, Buff, 47c

Blank Guides

57 E 9667—40 Divisions, A to Z, Buff, 3x5. Per package of 50. \$1.47
57 E 9668—80 Divisions, A to Z, Buff, 4x6. Per package of 50. 1.76
57 E 9669—120 Divisions, A to Z, Buff, 5x8. Per package of 50. 2.05
57 E 9670—25 Divisions, A to Z, Buff, 3x5. Per package of 50. \$2.60
57 E 9671—40 Divisions, A to Z, Buff, 4x6. Per package of 50. 2.95
57 E 9672—80 Divisions, A to Z, Buff, 5x8. Per package of 50. 3.45
Shipping weight, about 5 ounces.

Blank Index Cards

57 E 9673—Size 3x5. Pkg. of 100. 29c
57 E 9674—Size 4x6. Pkg. of 100. 45c
57 E 9675—Size 5x8. Pkg. of 100. 52c

Card Index Cards
Record Ruling
Made of good quality white stock

Manila Vertical File Guides
Letter size 9½x11½ inches.

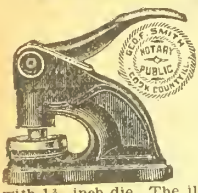
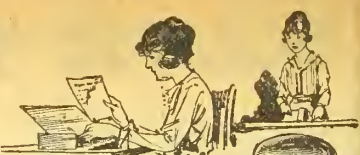
57 E 9627—25 Division, A to Z. Shipping weight, 1½ pounds. Per set of 25. \$1.58
57 E 9628—40 Division, A to Z. Shipping weight, 2½ pounds. Per set of 40. \$1.58
57 E 9629—80 Division, A to Z. Shipping weight, 5½ pounds. Per set of 80. \$3.15
57 E 9630—Monthly. Shipping weight, 14 ounces. Per set of 12. 45c
57 E 9631—Daily. Shipping weight, 2 pounds. Per set of 30. \$1.15

Vertical File Folders
Letter Size, 8½x11 inches.
This is a standard size letter file folder which will fit all our letter files of either steel or wood.

57 E 9635—Straight Cut, not tabbed. Shipping weight, 6 pounds. \$1.89
57 E 9636—Straight Cut, tabbed. Shipping weight, 6 pounds. \$1.98



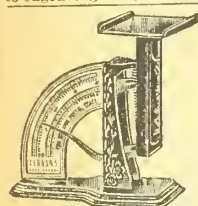
HANDY AIDS



Notary Public Seals

\$4.75
857 E 7592 — Same as 857 E 7592, with a smaller die, 1 1/2-inch. Shipping weight, 3 pounds.

Note—Above seals are made to order only; will not send C. O. D. if made as ordered, cannot be returned. Allow 10 days for the work.
Note—When State Coat of Arms is required on seal or special engraving for lodges, church societies, etc., price will be extra, according to engraving desired. Write for prices.

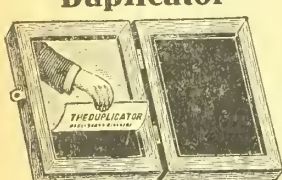


Postal Scale

57 E 7608—Superior Postal Scale. Shows the exact amount of postage required on all classes of mail matter. Handsomely finished in enamel, nickel-plated. Weighs up to 4 pounds by half ounces. Shipping weight, 1 1/4 pounds.

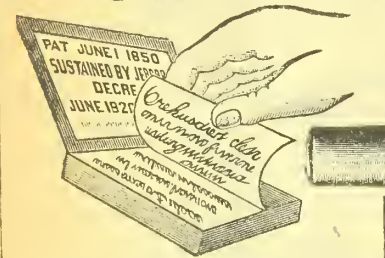
\$2.98

The Lawton Duplicator



Made in slate form, with heavy substantial frames, and with two surfaces. A perfect reproduction of the manuscript written with a common pen on ordinary paper, can be reproduced about 75 times, or an original written on the typewriter can be reproduced from 50 to 60 times in a few minutes. When using a typewriter it is necessary to use our Hektograph ribbon quoted below. No washing necessary. Prices complete with bottle of violet ink and sponge.
57 E 7467—Note size, 10 1/2 x 7 1/2 inches. Shipping weight, 5 1/4 pounds. **\$5.00**
57 E 7471—Letter size, 11 1/2 x 9 1/2 inches. Shipping weight, 6 1/2 pounds. **\$7.50**
57 E 7475—Cap size, 14 x 9 1/2 inches. Shipping weight, 8 1/2 pounds. **\$9.00**

Hektograph Duplicator



Hektograph Duplicator for making copies of pen or typewritten originals in one or more colors. Copies resemble the original, and the manner of using it is so simple that a boy can work it. Invaluable for making circulars, examination papers, postal cards and other notices, and all similar work. When using a typewriter it is necessary to use our Hektograph ribbon quoted below. Price includes violet ink and sponge.

57 E 7452—Note size, 9 1/2 x 6 1/2 inches. Shipping weight, 3 1/4 pounds. **\$3.00**
57 E 7455—Letter size, 11 1/2 x 9 1/2 inches. Shipping weight, 5 1/4 pounds. **\$5.00**

Duplicator Paper

For use on Hektograph or Lawton Duplicator. Never print on both sides of the paper. Each package contains 250 sheets.
57 E 7479—Note size. Shipping weight, 1 1/4 pounds. Per package. **85c**
57 E 7484—Letter size. Shipping weight, 3 1/4 pounds. Per package. **\$1.57**
57 E 7488—Cap size. Shipping weight, 4 1/4 pounds. Per package. **\$1.98**

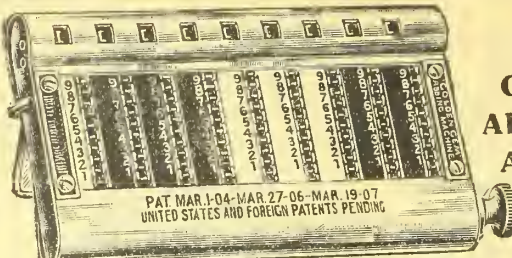
Hektograph Supplies

57 E 7458—Hektograph Composition, for refilling, put up in 2 1/2-pound can. Shipping weight, 3 pounds. **\$2.65**
Per 2 1/2-pound can.
57 E 7461—Hektograph Duplicating Ink, black, violet, green, blue, red. 1-ounce bottle. Shipping weight, 6 ounces. **45c**
Per bottle.
57 E 7464—Hektograph Typewriter Ribbon for use on Lawton Duplicator or Hektograph. Shipping weight, 4 ounces. **68c**
Each.
Mention name of typewriter when ordering

The Gem Adding Machine

\$13.78

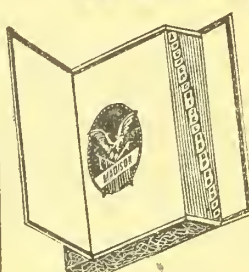
for seven column machine



Nine Columns Absolutely Accurate

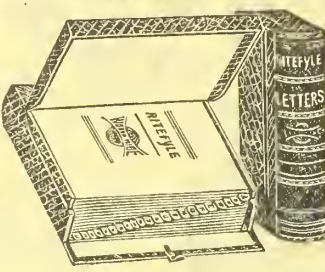
57 E 9801—Adds seven columns absolutely accurate. Capacity, \$99,999.99. Does the carrying automatically. Clears to zero automatically. Simple to operate. Gives total quicker than the figures can be written down. Totals always in sight of the operator. It is nickel-plated, with folding legs, which attach direct to the machine. Shipping weight, 1 1/4 pounds. **\$13.78**
57 E 9814—Same as 57 E 9801. Nine column machine with a capacity of \$99,999.99. Shipping weight, 2 pounds. **\$18.75**

HANDY FILING DEVICES



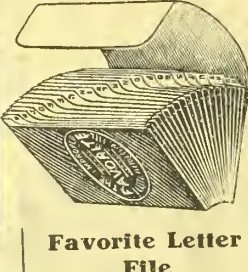
Madison Letter File

57 E 7331—The Madison Letter File. Indexed; wood frame fancy paper covered. Size 11 1/2 x 12 1/2 inches. Shipping weight, 2 1/4 pounds. **79c**



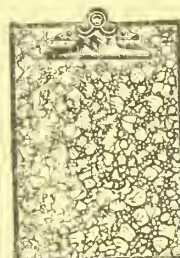
Thornward Letter File

57 E 7341—Thornward Letter File. Strongly made; has wood ends; joints stayed with cloth; also a self-working spring in cover. Index printed on both sides. Shipping weight, each, 2 1/2 pounds. **\$1.15**



Favorite Letter File

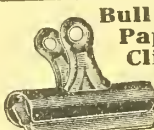
57 E 7334—Size 6 x 11 1/2 inches. Made of Heavy Manila paper. Capacity 3,000 letters. Shipping weight, 1 pound. **58c**
57 E 7337—Size 9 1/2 x 11 1/2 inches. Shipping weight, 1 1/4 pounds. **58c**



Board Clips

Gem Board Clips, nickel-plated 6 inches wide, stout spring, riveted to cloth bound tarboard back.

57 E 7344—Note, 6 1/2 x 11. Shipping weight, per clip 10 ounces. **53c**
57 E 7347—Letter, 9 x 12 1/2 inches. Shipping weight, per clip 12 ounces. **57c**
57 E 7350—Cap, 9 x 15 1/4. Shipping weight, per clip 1 1/4 pounds. **63c**



Bull Dog Paper Clips

57 E 7625 — 1 1/2-inch jaws, per 1/2 dozen **25c**
57 E 7628 — 2-inch jaws, per 1/2 dozen **35c**
Ship wt. per 1/2 doz., 5 oz.



Paper File

Made of cast iron. Shipping weight, each 6 ounces.
57 E 7410 **18c**

Double Arch File

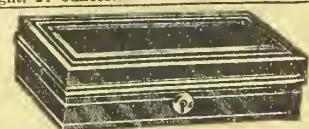
Mounted on striped wood back, well made and finished. Quotations are for the File and Board only. Indexes and perforators not included.
57 E 7358—Note, 7 x 12 inches. Shipping weight, 1 1/4 pounds. **97c**
57 E 7361—Letter, 9 x 14 1/2 inches. Shipping weight, 1 1/4 pounds. **\$1.05**
57 E 7364—Cap, 9 x 17 inches. Shipping weight, 2 pounds. **\$1.10**



Automatic Numbering Machine

\$9.87

57 E 8747 — Model 49A has features found on no other numbering machine, namely "nickel bronze" wheels, depressible and divided into equal tenths. It is self-inking. Numbers from 1 to 999,999 automatically. Has three movements. Viz.: consecutive, duplicate and repeat. Shipping weight, 21 ounces. **\$9.87**



Steel Bond Box

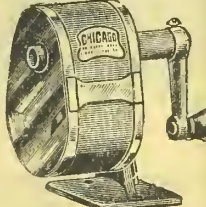
For Liberty Bonds and legal or valuable papers.
Well made of highly japanned tin, decorated in gold, handle on one end, two flat keys.
57 E 7404—Length, 10 1/2 inches. Outside width, 5 1/2 inches; height 2 1/2 inches. Shipping weight, 1 1/4 pounds. **\$1.05**
57 E 7406—Length, 11 inches. Outside width, 5 1/2 inches; height 3 1/4 inches. Shipping weight, 1 1/4 pounds. **\$1.25**



15-Inch Ruler

57 E 7584—Varnished maple wood, natural finish, inlaid brass edge divided into sixteenth of inches. Ship. weight, 6 ounces. **12c**

Chicago Pencil Sharpener

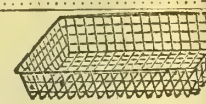


57 E 7652 Will sharpen any standard size pencil. Has two rotary cutters made of fine tool steel. Will sharpen thousands of pencils without adjustment or replacement. Can be fastened on the desk or on the wall. 4 1/4 inches high. Shipping weight, 1 1/4 pounds. **\$1.40**

Easy Writing Pencil

57 E 7718 Natural finish. Gilt top and eraser. In general use in our store. Numbers 2 and 3 lead. Shipping weight, per dozen 5 ounces. **17c**
3 Pencils for Per dozen **49c**

Wire Letter Tray



57 E 7383—Size, 9 1/2 x 13 1/2 x 12 1/4 inches made from extra tinned wire with rubber feet. Will not injure the finish of office furniture. Shipping weight, each, 13 ounces. **32c**

Wire Paper Basket

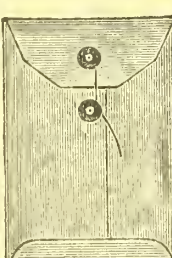


57 E 9999—Wire waste paper basket made from double wire. Depth, 11 inches. Width at top, 15 inches. Shipping weight, each 1 1/4 pounds. **72c**

Memorandum Books

Bound in imitation Russia red leather and all ruled in dollars and cents.
57 E 9210—Side opening, 36 leaves. Size 2 1/2 x 5 1/2 inches. Shipping weight, 4 ounces. **20c**
57 E 9214—Side opening, 48 leaves. Size 3 1/2 x 5 1/2 inches. Shipping weight, 5 ounces. **23c**
57 E 9225—Side opening, 80 leaves. Size, 3 1/2 x 6 1/2 inches. Shipping weight, 8 ounces. **25c**
57 E 9229—Side opening, 72 leaves. Size, 3 1/2 x 6 1/2 inches. Canvas Letter Index. Shipping weight, 8 ounces. **30c**
57 E 9235—Side opening, 72 leaves. Size, 4 1/2 x 6 1/2 inches. Shipping weight, 8 ounces. **38c**

OPEN END TENSION ENVELOPES



Open-end envelopes made of heavy manila with patented fasteners.

String Fastener

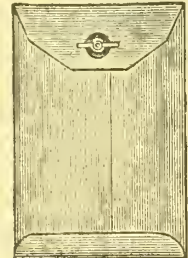
Two buttons firmly fastened to envelope with strong twine attached.

57 E 7375—Size, 7 1/2 x 10 1/2. **\$1.00**
57 E 7376—Size, 9 x 12. **23c**

Metal Fastener

Hole in flap and the clinching of the fasteners are both reinforced with double thickness paper to prevent tearing out.

57 E 7377—Size, 7 1/2 x 10 1/2. **\$1.78**
57 E 7378—Size, 9 x 12. **2.18**



Automatic Paper Fasteners



57 E 7578 — Eyelet Punch and set for binding manuscripts, legal papers, etc. Will punch hole and set eyelets without removing the punch from the hole. Shipping weight, 8 ounces. **\$2.98**
57 E 7581 — Eyelets for use with 57 E 7578 punch. 500 in box. Shipping weight, each 10 ounces. One size only. **39c**
Box of 500. **39c**

Paper Fastener

Hotchkiss Automatic Paper Fastener. Cast-iron nickel finish. Shipping weight, 1 1/4 pounds. **\$2.48**
57 E 7553 — Flat Staples 1/4-inch for use in above. Box of 500. **27c**
Shipping weight, 3 ounces.

Perforator

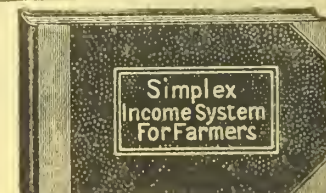
A handy perforator that can be attached to your Arch File. Perforates papers to fit any of the Double Arch Files listed above. Made of metal, nickel finish. Shipping weight, 7 ounces. **48c**
57 E 7371 — **48c**

Paper Clips

57 E 7618 — Holds thinnest sheet of paper. Length, 1 1/4 inches. Shipping weight, per box, 4 ounces. **10c**
Per box of 100. **87c**
10 boxes (1,000).

Eyeshade

57 E 7587—Green, transparent celluloid, with ventilating spaces at top, and elastic ribbon tie. Shipping weight, 4 ounces. **18c**



Simplex Income System For Farmers

Income Tax System

57 E 3392—This system has been devised make it easy for you. Good ledger paper. Strong bound. Size, 8 1/4 x 13 1/4 inches. Shipping weight, 1 1/4 pounds. **\$2.75**

Come Out of the Shadows and Save Your Eyes!

Poor Light
Destroys
Eyesight

Match Lighting Gasoline Lamps

A GASOLINE lamp that gives a very bright but soft white light of 300 candle power. Easy on the eyes—many old people do not need glasses when using this lamp. Brighter than city gas or electricity. Perfectly safe—will burn upside down or in any position. Gasoline cannot escape. Complete instructions furnished. Has no greasy wick

to trim or dirty chimney to clean—no dirt, smoke or smell. Clean it only once a month. Quickly filled and lighted. Lighted with a common match in 10 to 15 seconds. Capacity, 4 pints. Burns 20 to 24 hours on one filling. Finished in polished nickel. Two mantle burner. Complete with air pump, extra generator and wrench. Use 50E2616 mantles.

Lights in 15 Seconds—Makes Its Own Gas



Low Priced Reading
Lamp

B. and H. Central
Draft Burners \$4.65

The well-known B. & H. Oil Reading Lamp. Brass fount, richly nickel-plated. Heavily embossed base. Ribbed 10-inch white opal glass dome shade. Number 2 B. & H. center draft burner. Height, 20 inches. Shipping weight, 10 pounds.

450 E 2799—Price \$4.65

Extra Supplies for Above Lamp

50 E 2834—10-inch Opal Ribbed Shade. Each.....\$1.25

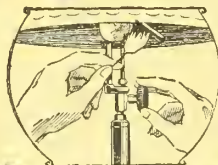
50 E 2862—Number 2 Rochester Chimney. Three for.....90c

50 E 2907—Number 2 B. & H. Wick. Price.....15c

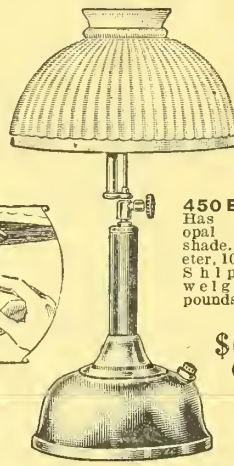


450 E 2600
12-inch green
art paneled shade
with brass filigree
work. Shipping
weight, 14
lbs.

\$12.98

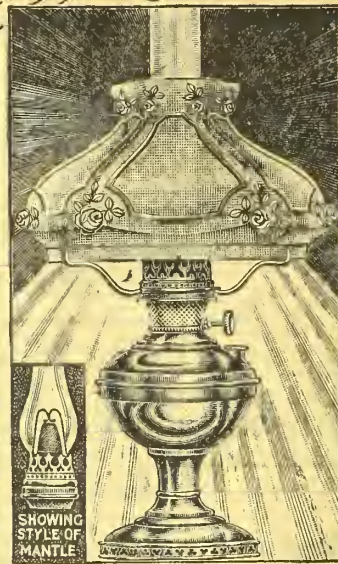


Use a
Common
Match



450 E 2601
Has ribbed
opal glass
shade. Diam-
eter, 10 inches.
Shipping
weight, 15
pounds.

\$8.45



Sunlight Mantle Lamp
Central Draft Mantle Burner

Slight is your greatest blessing! Protect it! Use only the best light. Poor light destroys eyesight. The Sunlight Mantle Lamp will flood your rooms with a soft, even, mellow light. It is simple in operation. Perfectly safe. 60 candle power. Economical—burns ordinary kerosene. Nickel finish. Embossed conventional rose design shade. Diameter, 11 inches. Height, 23 inches.

450 E 2553—Complete with mantle, chimney and wick. Shipping weight, 10 pounds.

Price.....\$8.95

50 E 2560—Extra Mantles. Shipping weight, 6 ounces.

Price.....35c

50 E 2558—Mounted Wicks. Shipping weight, 8 ounces. Price.....50c

50 E 2559—Chimneys. (Cannot be sent by parcel post). Shipping weight, 2 pounds.

Price, each.....50c

B. and H.
Central Draft
Radiant Lamp \$6.98

One of the most widely known and thoroughly satisfactory kerosene oil lamps made. Its light is soft, clear, steady and restful to the eyes—the ideal light by which to work or read. Equipped with the celebrated Number 4 B. and H. central draft burner.

Made of solid brass, handsomely nickel-plated. Has a 10-inch green corrugated glass shade and is 21 inches high. Has Number 1 Belgian chimney and Number 4 Radiant Wick.

Radiant lamps are designed primarily for service, but with perfect construction is combined beauty of design and finish. They are safe and easily kept clean. Shipping weight, 10 pounds.

450 E 2584—Price.....\$6.98

Extra Supplies for above lamp

50 E 2836—10-inch Green Ribbed Shade. Each.....\$2.45

50 E 2875—Number 1 Belgian Chimney. Three for.....75c

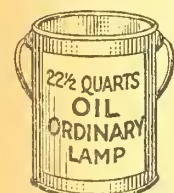
50 E 2911—Number 4 Radiant Wick. Each.....17c

Ward's Angle Lamps Give Soothing Light

ANGLE LAMPS are different from all other lamps because the wick burns at such an angle that the light falls where most needed—under the lamp. No shadow below to make the center of the room a twilight zone and no heat to be shielded from the ceiling.

Burns 20 Hours on One Quart of Oil

Think of it! The ordinary lamp burns only 10 hours on this amount of oil. Cuts your oil bill one half. It furnishes a good reading light as well as a good general light. The lamp is easy to fill because the container simply lifts out and fills like a water bottle. The most convenient kerosene oil lamp made.

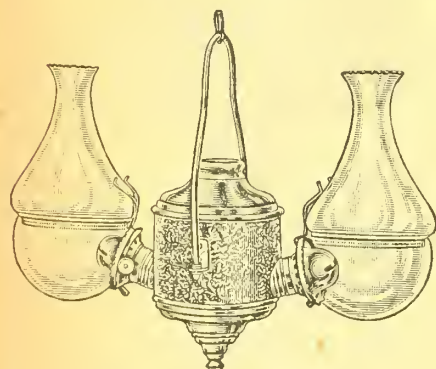


The unusual shape of the chimney and globe entirely protects the flame from drafts, thus insuring a steady light and preventing smoking. There is no odor. No smoky chimneys to cut off the light. You regulate it as you do gas. When you light the lamp, simply tip the globe and apply the match to the wick. By turning the wick back, the light is extinguished automatically.

A Lamp For
Every Room

Have this good uniform light throughout the home—install angle lamps in the living rooms, kitchen and hallways. Excellent for use in stores and churches. What you save on oil will soon pay for the lamps.

Nickel Embossed Hanging Lamps



2-Burner Hanging
Lamp

450 E 2564—Shipping weight, 26 pounds. Price, each.....\$9.98

3-Burner Hanging
Lamp

450 E 2562—Shipping weight, 30 pounds. Price, each.....\$13.45

Finely nickel and polished, with embossed oil pot holder. These hanging lamps have bottom globes of plain clear glass, and chimneys of white opalescent glass. Fitted with Number 3 flat wick burners. Oil pot holds 2 1/2 quarts of oil. Instructions included.

An
Artistic
Hanging
Lamp

New Classic Design

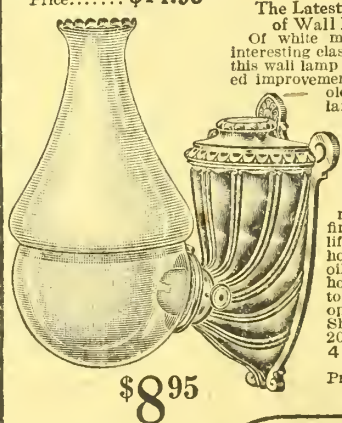
Only

\$14.95

When a decorative, brilliant lamp of this type may be purchased at the price of an ordinary lamp, it is not necessary or wise to endure the discomfort and danger of poor lighting.

This Two-burner Hanging Lamp, cast from white metal, is of an unusually impressive classic design, with an old gold finish. The patent lift out fount holds about a quart of oil, and will burn ten hours. Shipping weight, 23 pounds.

450 E 2588—Price.....\$14.95

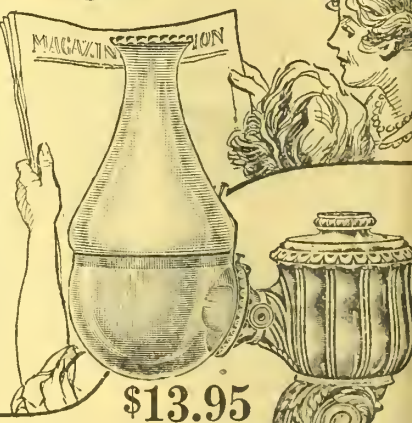


\$8.95

The Latest Type
of Wall Lamp

Of white metal, in an interesting classic design, this wall lamp is a marked improvement over the old style wall lamp. Economy of operation is its chief virtue—the fuel burns at the rate of 1/5 c an hour. Externally decorated in old gold finish. Patent lift out fount holds one pint of oil and burns 10 hours. Crystal top, with a white coral chimney. Shipping weight, 20 pounds.

450 E 2589—Price.....\$8.95



\$13.95

Extra Top and Bottom Globes

50 E 2570—Top Globes. Plain opaque white. Each.....\$1.25

50 E 2572—Bottom Globes. Clear plain glass. Each.....95c

50 E 2578—Blue Opalescent Top Globes. Each.....\$1.35

Shipping weight, each, 2 1/2 pounds.

Single Burner Wall Lamp

Nickel Embossed
Oil Chamber

It is a wall lamp fitted with a slot for hook or nail. Handsomely finished in polished nickel. Oil pot holds 1 quart of kerosene. Shipping weight, 18 pounds.

450 E 2566—Price, each.....\$6.95



Spring Extension
For Hanging Lamp

Strong, well made. Shipping weight, 8 pounds.

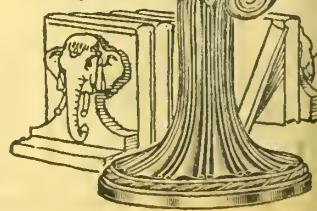
50 E 2592—Polished brass. Each.....\$2.98

50 E 2594—Nickel-plated. Each.....\$3.10

Reading Lamp of Unique Design

It has not always been possible to buy a table lamp with appearance and lighting properties of such excellence. In this single burner reading lamp you will enjoy a steady, soothing light, as well as an ornament of unusual beauty. The finish is old gold, the height to top is 15 inches. Cast patent lift out fount holds about a quart of oil, which burns 20 hours. Shipping weight, 28 pounds.

450 E 2587—Price.....\$13.95



Oil Burning Lamps



Store Lamp with B. & H. Burner
150 E 2545—Shipping weight,
15 pounds. Price.....\$9.98

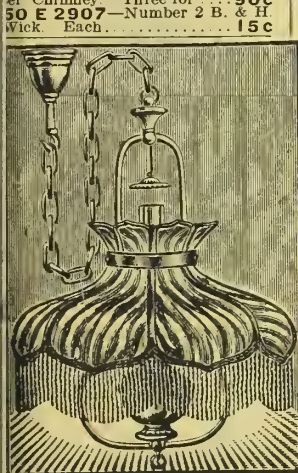
Mammoth B. & H. brass store
lamp. Has Number 3 B. & H.
center draft burner. Embossed
brass fount and frame. 20-inch tin
shade.

Extra supplies for above lamp:
50 E 2869—Number 3 Roches-
ter Chimney. Three for.....\$1.85
50 E 2909—Number 3 B. & H.
Mammoth Wick. Each.....35c

With 15-in. Green Tin Shade
150 E 2543—Shipping weight,
10 pounds. Price.....\$5.98

Similar to above but fitted with
Number 2 B. & H. center draft
burner. Polished brass fount and
frame. Extra supplies for above
lamp:

50 E 2862—Number 2 Roches-
ter Chimney. Three for.....90c
50 E 2907—Number 2 B. & H.
Wick. Each.....15c



Genuine Art Glass Lamp
A massive and elegant oil lamp.
Design paneled 22-inch dome.
Rich amber colors with beaded
fringe. Panels held together by
strips of polished brass. Brass fount
chain and ceiling canopy. Length
to bottom of frame, including chain
72 inches. Fitted with a Number 2
B. & H. Center Draft Oil
Burner.

150 E 2528—
Each.....\$19.95

Extra Supplies for above Oil
Lamp:

50 E 2862—Number 2 Roches-
ter Chimney. Three for.....90c
50 E 2907—Number 2 B. & H.
Wick. Each.....15c



White Dome Hanging
Lamp

450 E 2502—Shipping weight
30 pounds. Price.....\$7.85

14-inch plain white dome shade
Equipped with the famous B. & H.
automatic extension.

Extra Supplies for above Lamp:
50 E 2838—14-inch, Opal
Glass Dome shade. Each.....\$2.98

50 E 2814—Number 2 Glass
Library Fount. Each.....40c
50 E 2782—Number 2 Sun
Burner. Each.....17c

50 E 2850—Number 2 Sun
Chimney. Three for.....75c
50 E 2895—Number 2 Flat
Wick. Per dozen.....25c

Premier
Floor Lamp

An oil lamp that
is appropriate for
your music room or
living room. It has
a silk poplin shade
of a pretty old rose
color. The grace-
ful mahogany fin-
ished standard is
of the right height
to properly illumi-
nate the piano.
Height of lamp
over all is 72 in-
ches. Shade, 24
inches wide.
Equipped with the
celebrated Num-
ber 2 B. & H.
center draft burn-
er which gives a
steady bright light.
Brass fount. Ship-
ping weight, 20
pounds.
150 E 2730—
Price.....\$21.50

Extra Supplies for Above
Lamp:
50 E 2862—Number 2
Rochester Chimney. Three for.....90c
50 E 2907—Number 2 B. & H.
Wick. Each.....15c



\$21.50



Soft Inverted
Shadowless
Rag Mantles

50 E 2614—
Regular size soft
Regular size soft

sewed bottom mantle. Can be
crumpled without injury. For use
on gasoline or kerosene lamps
and lanterns.

Price, per half dozen.....59c
50 E 2616—Junior size. Ship-
ping weight, per half dozen, 1
ounce. Price, per half dozen.....49c



Polished
Brass Oil
Founts

Inside lift
out founts
with center
draft burn-
er. "Di-
ameter, 4 1/4
in. Ship-
ping wt.,
10 pounds
50 E 2884—
Each.....\$2.79



Floral Design Hanging Lamp

A striking and artistic de-
sign made especially for us.
Beautiful 14-inch art shade
and fount to match. Decorated
with sprays of flowers and
foliage in natural tints. Has
B. & H. automatic extension.
Shipping weight, 30 pounds.

450 E 2513—
Price.....\$8.95

Extra Supplies for above
Oil Lamp:
50 E 2920—Number 3
Climax Burner. Each.....35c
50 E 2850—Number 2
Sun Chimney. Three for.....75c
50 E 2894—Number 3
Flat Wick. Per dozen.....35c



Pansy Design Hanging
Lamp

Famous B. & H. Number 2
Center draft burner. Brushed
brass fount, 14-inch majestic dome
shade, decorated with beautiful
Pansies on a pink and gray tinted
background and hung with 30
crystal glass prisms. Comes com-
plete, ready to use, with the well
known B. & H. automatic extension.
450 E 2518—
Price.....\$14.95

Shipping weight, 30 pounds.
Extra Supplies for above Lamp:
50 E 2862—Number 2 Roches-
ter Chimney. Three for.....90c
50 E 2907—Number 2 B. & H.
Wick. Each.....15c

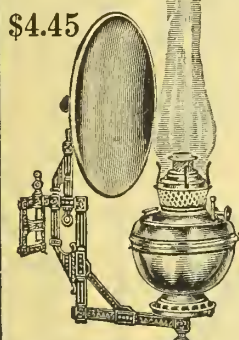


Parlor Oil Lamp

Scene Decorations

150 E 2784—Parlor
Oil Lamp Scene de-
corations on shade encircled
with red roses. Rose
spray on fount, tinted
background. 10-inch
shade, beaded fringe.
Brass base in scroll de-
sign. Number 3 Climax
burner. Height, 20
inches. Shipping weight,
18 pounds. Price.....\$8.95

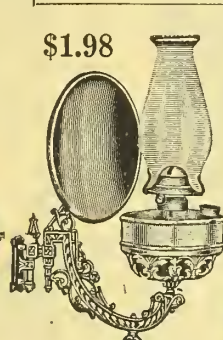
Extra Supplies for Above
Lamp:
50 E 2920—Climax
Burner, No. 3. Each.....35c
50 E 2873—Number
2 Electric Chimney.
Three for.....90c
50 E 2894—Number
3 Flat Wick. Per dozen.....35c



450 E 2785 \$4.45

Bracket Oil Lamp.
Embossed solid metal
bracket and wall plate, in
golden bronze finish.
Brass removable oil
fount. Number 2 B. & H.
center draft burner. 10-
inch silvered glass reflec-
tor. Height, 18 inches.
Shipping weight, 7 1/2
pounds.

Extra Supplies for Above
Lamp:
50 E 2862—Number
2 Rochester Chimney.
Three for.....90c
50 E 2907—Number
2 B. & H. Wick. Each.....15c
50 E 2929—10-inch
Reflector. Each \$1.15



550 E 2783 \$1.98

Bracket Oil Lamp.
Embossed solid metal
bracket, wall plate and
fount holder in golden
bronze finish. Crystal
glass fount. Adjustable
reflector. Height, 15
inches. Shipping weight,
5 1/2 pounds.

50 E 2927—8-inch.
Silvered Glass Reflector.
Each.....75c



550 E 2781 \$1.65

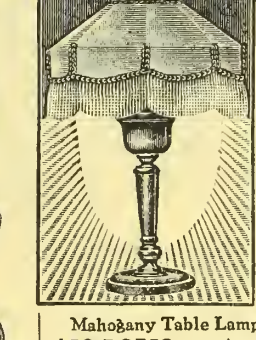
Bracket Oil Lamp.
Solid metal bracket.
Golden bronze finish.
Complete with wall
plate and attached sil-
vered 7-inch reflector.
Height, 14 inches. Ship-
ping weight, 5 pounds.

50 E 2925—7-inch
Silvered Glass Reflec-
tor. Each.....60c



550 E 2796 Large
embossed Crystal Glass
Lamp. Height, 19
inches. Has patented
clinch-on collar. Num-
ber 2 Sun burner.
Shipping weight, about
7 pounds. Price.....\$1.39

50 E 2792—Stand
Oil Lamp. Similar to
above. Patent, mold-
ed in collar. Height, 19 1/2
inches. Shipping
weight, 6 1/2 pounds.
Price.....93c



Mahogany Table Lamp

450 E 2753—A rich
looking mahogany fin-
ished stand lamp. The solid brass
fount is mahogany finished
to match the standard. The
shade is made in a prettily
curved octagonal design in
old rose silk poplin with a
fancy fringe, trimmed with
artistic braid. Diameter of
shade, 16 inches. Height of
lamp, 26 inches. Shipping
weight, 26 pounds. Price.....\$9.98

Extra Supplies for Above
Lamp:
50 E 2920—Climax
Burner, Number 3. Each.....35c
50 E 2873—Number
2 Electric Chimney. Three
for.....90c
50 E 2894—Number 3
Flat Wick. Per dozen.....35c

Extra Supplies for Above Lamps

50 E 2812—Number 2 Glass Oil Fount. Each.....48c
50 E 2850—Number 2 Sun Chimney. Three for.....75c
50 E 2862—Number 2 Sun Burner. Each.....21c
50 E 2895—Number 2 Flat Wick. Per dozen.....25c

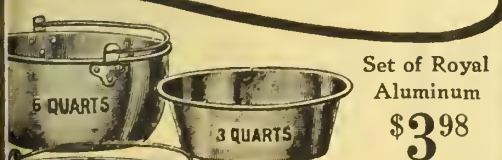
Five Specials!



8-Piece Turquoise Blue Ware Set

We are offering this set to you at a price that
means a great saving. Sizes are as fol-
lows: Convex Kettle, 5 1/2 quarts; Preserving
Kettle, 5 1/2 quarts; Sauce Pan, 2 quarts; Pud-
ding Pan, 1 1/2 quarts; Soup Ladle, Basting
Spoon, 12 inches and 2 Pie Plates, 9 inches.
Shipping weight, about 18 pounds.

486 E 770—Price.....\$3.59

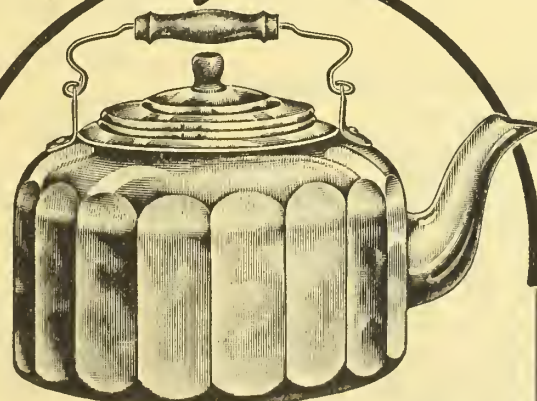


Set of Royal
Aluminum

\$3.98

A 6-quart Preserving Kettle, 8-quart
Convex Kettle and 3-quart Pud-
ding Pan. Made seamless of our well
known Genuine Royal Aluminum
Ware. Shipping weight, 6 pounds.

486 E 1186—
Price, only.....\$3.98



Aluminum Tea Kettle

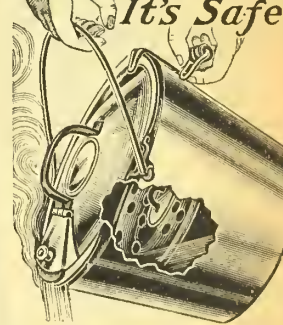
\$2.48 This pretty panel design tea kettle, besides being useful
is an ornament in any kitchen. Made seamless
of pure silvery bright aluminum. Ebonized handle and
knob. Shipping weight, 3 pounds. For Number 8 stove.

Only One to a Customer

486 E 1165—One to a customer at.....\$2.48

The Genuine Griswold Cast Iron Safety Kettle

A brightly polished cast
iron kettle with improved
safety cover for pouring
hot contents without the
danger of scalding your
hands. To be used for
all kinds of cooking or
stewing. By inserting
the perforated tin plate,
kettle can be converted
into a steamer for cook-
ing dumplings or pud-
dings over hot water,
making them lighter and
more delicate than when
boiled directly in the
water. Capacity, 8
quarts. Shipping weight,
about 10 pounds.
486 E 1451—
Price.....\$2.89



Capacity, 8
Quarts

Windsor Gray Enamel
Water Set

\$1.98

A useful set of most depend-
able gray enamel ware. Con-
sists of an 11-quart Pail, 12 1/2-
inch Basin and 1-pint Dipper.
Shipping weight, 4 1/2 pounds.

486 E 670—
Price, complete set.....\$1.98



WARD'S DURO

Double Coated Gray Enamel Ware

The unusual sturdiness of Duro Ware is due to the fact that it has two distinct coats of gray enamel. Ordinary ware has but one coat.

Duro ware will stand long and hard service. It is easily washed and has no seams or crevices to collect dirt and grease. Sizes given, average.



Duro Double Boilers
86 E 611
Shipping weights, 3, 3½ and 4½ pounds.

| Cap. Qts. | Price Each |
|-----------|------------|
| 1½ | \$.98 |
| 2½ | 1.19 |
| 3½ | 1.48 |



Duro Pie Plates
86 E 607 — Size, 9 inches. Shipping weight, 16 ounces. Price, each,..... 20c

| Cap. Qts. | Ship. Wt. Lbs. | Price Each |
|-----------|----------------|------------|
| 1 | 1½ | 22c |
| 1¾ | 1¾ | 28c |
| 2 | 2 | 34c |
| 4 | 2½ | 40c |



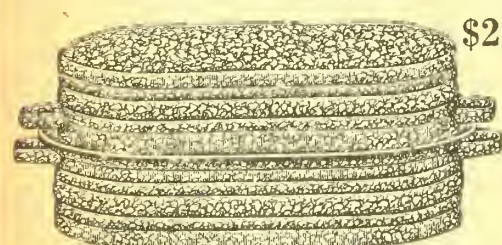
Duro Mixing Bowls
86 E 604

| Diam. In. | Ship. Wt. Lbs. | Price |
|-----------|----------------|-------|
| 8½ | 1 | 35c |
| 10½ | 2 | 45c |



Duro Covered Sauce Pans
86 E 620

| Cap. Qts. | Ship. Wt. Lbs. | Price |
|-----------|----------------|-------|
| 2 | 2 | 44c |
| 3 | 2½ | 60c |
| 4 | 2¾ | 75c |



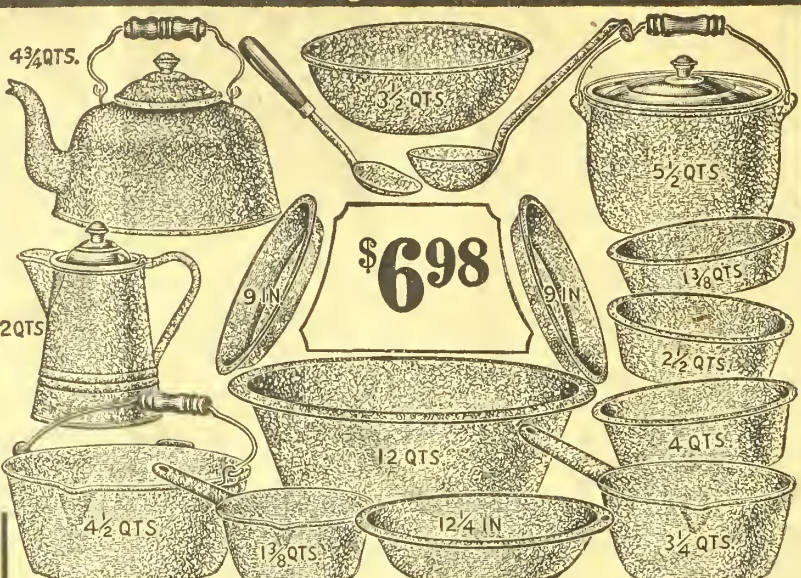
Made seamless of heavy sheet steel, covered inside and out with two coats of Duro Enamel. Cover fits snugly, preventing shrinkage of meat. Continuously self-basting. Will take large roast or fowl. Cover and body can be used individually.

486 E 628 — Size (over handles), 16½x10x7 inches. Shipping weight, 5 pounds. Price,..... \$2.48

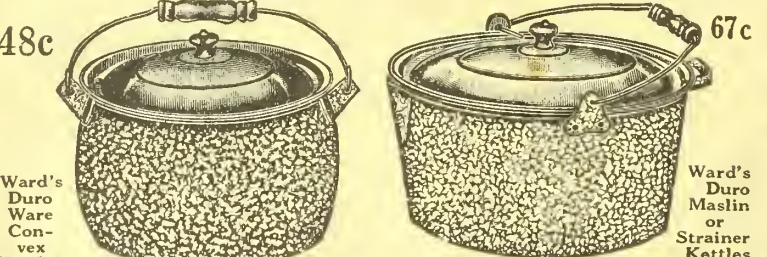
486 E 633 — Size (over handles), 19½x12x8 inches. Shipping weight, 6½ pounds. Price,..... \$2.89



Ward's Duro Colanders
86 E 624 — Diameter at top, 11½ inches. Shipping weight, about 2 pounds. Price,..... 58c



16-Piece Set of Ward's Duro Double Coated Ware
A splendid assortment of cooking utensils that will take care of the average family's requirements. The capacities of the vessels are most generous. For Number 8 stove. Set consists of: Tea Kettle, 4½ quarts; Coffee Pot, 2 quarts; Convex Kettle, 5½ quarts; Preserving Kettle, 4½ quarts; Sauce Pan, 1½ quarts; Sauce Pan, 3½ quarts; Dish Pan, 12 quarts; Mixing Bowl, 3½ quarts; 2 Pie Plates, 9 inches; Baking Pan, 1½ quarts; Soup Ladle; Wash Bowl, 12½ inches; Pudding Pan, 4 quarts; Pudding Pan, 2½ quarts; and Basting Spoon. Shipping weight, about 40 pounds. **486 E 652** — Complete set,..... \$6.98

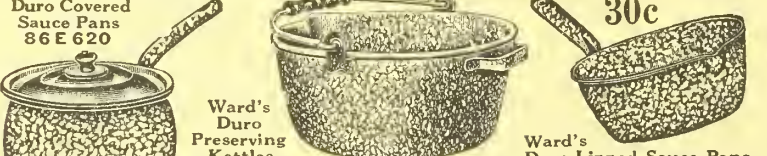


86 E 616

| Capacity | Shipping Weight | Price |
|-----------|-----------------|--------|
| 4 quarts | 2½ pounds | \$.48 |
| 5½ quarts | 3½ pounds | .75 |
| 8 quarts | 3½ pounds | .90 |
| 9½ quarts | 4½ pounds | 1.10 |

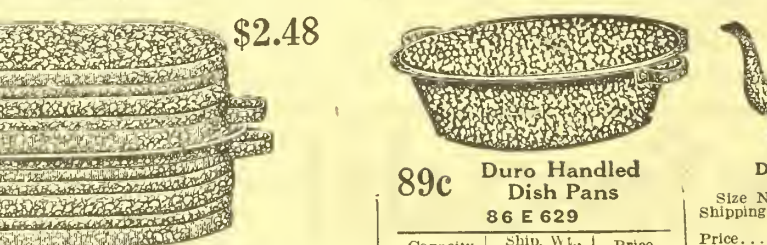
86 E 618

| Capacity | Shipping Weight | Price |
|-----------|-----------------|--------|
| 5 quarts | 3 pounds | \$.67 |
| 6 quarts | 3½ pounds | .75 |
| 7 quarts | 3½ pounds | .89 |
| 9½ quarts | 4½ pounds | 1.10 |



Ward's Duro Lipped Sauce Pans
86 E 621

| Cap. Qts. | Ship. Wt. Lbs. | Price |
|-----------|----------------|-------|
| 1½ | 1¼ | 30c |
| 2 | 1½ | 35c |
| 2½ | 2¼ | 39c |
| 3½ | 2½ | 45c |
| 4½ | 3 | 48c |



Duro Handled Dish Pans
86 E 629

| Capacity | Ship. Wt. About | Price |
|----------|-----------------|--------|
| 9½ qts. | 4 lbs. | \$.89 |
| 11 qts. | 4½ lbs. | 1.10 |
| 14½ qts. | 5 lbs. | 1.19 |
| 19 qts. | 5½ lbs. | 1.48 |



6-Piece Duro Enamel Ware Assortment
Set contains one 4-quart Convex Kettle; one 1½-quart Double Boiler; one 2½-quart Pudding Pan; one 2½-quart Sauce Pan and two 9-inch Pie Plates. Shipping weight, about 9 pounds. **486 E 655** — Price, set,..... \$2.69

Enlarged Cross Section View of Duro Ware



Duro Coffee Pots
86 E 613

| Cap. Qts. | Ship. wt. lbs. | Price |
|-----------|----------------|-------|
| 2 | 2½ | 65c |
| 3½ | 2¾ | 75c |



Duro Tea Pots
86 E 612

| Cap. Qts. | Ship. wt. Pounds | Price |
|-----------|------------------|-------|
| 1 | 2 | 54c |
| 2 | 2½ | 65c |



Duro Coffee Boiler
86 E 614

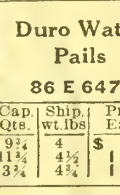
| Cap. Qts. | Ship. Wt. Lbs. | Price |
|-----------|----------------|--------|
| 5 | 3½ | \$1.10 |
| 6½ | 4 | 1.25 |
| 9 | 4½ | 1.55 |



Duro Tea Kettles
86 E 615
Size No. 7. Holds 4½ quarts. Shipping weight, about 4 pounds. Price,..... 98c

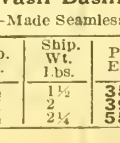
Size Number 8. Holds 6 quarts. Shipping weight, about 4½ pounds. Price,..... \$1.19

Size Number 9. Holds 7 quarts. Shipping weight, about 4½ pounds. Price,..... \$1.42



Duro Water Pails
86 E 647

| Cap. Qts. | Ship. wt. lbs. | Price Each |
|-----------|----------------|------------|
| 9½ | 4 | \$.98 |
| 12½ | 4½ | 1.19 |
| 13½ | 4¾ | 1.39 |



Duro Wash Basins
86 E 650 — Made Seamless.

| Diam. In. | Cap. Qts. | Ship. Wt. Lbs. | Price Each |
|-----------|-----------|----------------|------------|
| 11½ | 2½ | 1½ | 35c |
| 12½ | 3½ | 2 | 39c |
| 13½ | 5½ | 2½ | 55c |

Better Coffee!
Crystal Wall Coffee Mill



86 E 2141 — The Arcade Canister Mill. Holds 1 pound of coffee. Wood case. Side grip. Steel alloy grinders. Shipping weight, 4½ pounds. Price,..... \$1.15



486 E 2142 — Easily attached to wall or door. Glass hopper has air-tight screw cover, which retains coffee's strength. Holds 1 pound. Tumbler held in place by a spring. Strong enameled iron frame and crank. Grinds coarse medium and fine. Height 16½ inches. Shipping weight, 8 pounds. Price,..... \$1.19



Bilt-Rite Egg Beater
86 E 1860 — Whip cream or eggs in one minute. Nickel-plated. Length 10 inches. Complete with 1-quart earthenware mixing bowl, countersunk to hold whip in place. Shipping weight, 2½ pounds. Price,..... 89c



Speed Whip Complete with Bowl
86 E 1860 — Whip cream or eggs in one minute. Nickel-plated. Length 10 inches. Complete with 1-quart earthenware mixing bowl, countersunk to hold whip in place. Shipping weight, 2½ pounds. Price,..... 89c

Genuine Swedish Enamel Ware



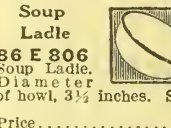
Cereal Bowls
86 E 816

| Diam. In. | Shipping Weight | Price Each |
|-----------|-----------------|------------|
| 4¾ in. | 6 oz. | 24c |
| 5½ in. | 8 oz. | 33c |

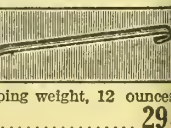


Mixing Bowls
86 E 808

| Diam. In. | Shipping Weight | Price Each |
|-----------|-----------------|------------|
| 8 in. | 1 lb. | 59c |
| 10½ in. | 2 lbs. | 98c |

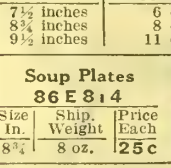


Soup Ladle
86 E 806
Soup Ladle. Diameter of bowl, 3½ inches. Shipping weight, 12 ounces. Price,..... 29c



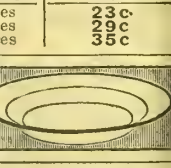
Dinner Plates
86 E 812
Shipping weights, 6, 8 and 11 ounces.

| Size | Shipping Weight | Price, Each |
|-----------|-----------------|-------------|
| 7½ inches | 6 ounces | 23c |
| 8½ inches | 8 ounces | 29c |
| 9½ inches | 11 ounces | 35c |



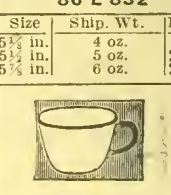
Soup Plates
86 E 814

| Size In. | Ship. Weight | Price Each |
|----------|--------------|------------|
| 8¾ | 8 oz. | 25c |



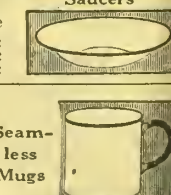
Saucers
86 E 832

| Size | Ship. Wt. | Price |
|--------|-----------|-------|
| 5½ in. | 4 oz. | 18c |
| 5½ in. | 5 oz. | 20c |
| 5½ in. | 6 oz. | 23c |



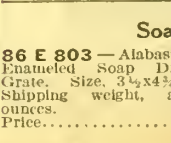
Cups
86 E 831

| Diam. In. | Ship. Wt. Ounces | Price |
|-----------|------------------|-------|
| 3½ | 5 | 29c |
| 3½ | 7 | 35c |
| 4 | 10 | 35c |



Seamless Mugs
86 E 835 — Size, 2½ inches. ½-pint capacity. Shipping weight, 25 ounces. Price,..... 25c

86 E 836 — Size, 3½ inches. ¾-pint capacity. Shipping weight, 10 ounces. Price,..... 29c



Soap Dish
86 E 803 — Alabaster White Enameled Soap Dish and Grate. Size, 3½x4½ inches. Shipping weight, about 8 ounces. Price,..... 48c

3 FOR 25c

Tin Cake Pans
86 E 1505—Straight sides, Size, 10x1 1/2 inches. Shipping weight, of 3, about 12 ounces. **3 for 25c**

Tin Pie Plates
86 E 1524—Size, 9 1/4 x 1 1/2 inch. Shipping weight, of 3, 12 ounces. **3 for 20c**
86 E 1525—Size, 10x1 1/2 inches. Shipping weight, of 3, 15 ounces. **3 for 25c**

Shallow Muffin Pans
86 E 1510—Stamped tin. Shipping weight, 12 and 15 ounces.

| No. Cups | Size Inches | Each |
|----------|----------------|------|
| 8 | 1 3/4 x 6 3/4 | 21c |
| 12 | 1 3/4 x 10 1/4 | 32c |

Nickel Plated Flour Sifter
86 E 1539—Made of selected tin, nickel-plated. The agitator is strong and effective. Size, 6 1/2 x 5 1/2 inches. Shipping weight, 1 pound. **Each 48c**

Sanitary Tin Bread Pans
86 E 1515—Extra heavy. Rounded corners and edges. Made from one piece with ends folded (not cut and riveted). Shipping weights, each, 12 to 18 ounces.

| Holds | Sizes, inches | Price |
|--------------|------------------------|-----------|
| 1 pound | 4 1/2 x 8 1/2 x 2 1/4 | 3 for 45c |
| 1 1/2 pounds | 5 1/2 x 9 1/2 x 2 1/4 | 3 for 54c |
| 2 pounds | 6 1/2 x 10 1/2 x 2 1/4 | 3 for 69c |

Sheet Steel Baking Pan
86 E 1425—Shipping weight, about 1 to 3 pounds.

| Size | Price |
|-------------|-------|
| 7 x 10 | 12c |
| 7 x 14 | 15c |
| 8 x 17 | 20c |
| 10 x 16 | 23c |
| 13 1/2 x 17 | 29c |
| 17 1/2 x 19 | 39c |

Sanitary Glass Rolling Pin
86 E 1519—The secret of flaky pie crust—it is hollow and can be filled with cold water or cracked ice. Clear glass. Length, 15 1/2 inches. Shipping weight, 3 pounds. **32c**

The Ideal Toaster
 Toasts quickly and uniformly. Can be taken apart completely for cleaning and immediately assembled. Shipping weight, 1 pound. **86 E 1996 25c**

Cake Ornamenting Outfit
 For making your cakes and pastry as attractive as a professional baker's. Consists of rubber bag, tinned bag screw, 12 assorted screw tubes and book of designs and recipes. Shipping weight, 12 ounces. **86 E 1590—\$1.95 Per set**

Dainty Little Cake Moulds
 For making all sorts of dainty little cakes. Furnished in the shapes illustrated. Average diameter, 3 inches. Shipping weight, per dozen, about 6 ounces. **86 E 1560—Per dozen, assorted 24c**

Cake Cutter Sets
 Made of tin. In assorted styles.
86 E 1576—Set of 4. Ship. **32c**
86 E 1577—Set of 12. Shipping weight, 1 1/2 pounds. **89c**

Rosette Wafer Irons
86 E 1594—Diameter, 3 inches. Makes a dainty foundation for serving fruits, vegetables, etc. Shipping weight, 1 pound. **Per set 69c**

Patty Iron Outfit
86 E 1593—Make crisp little patties for serving dainties of all sorts, salads, pies, etc. Directions included. Shipping weight, 2 pounds. **69c**

Cooks an Entire Meal in 1/3 the Usual Time!

Ward's Steam Pressure Cooker

Construction
 MADE of polished, cast aluminum. Steam gauge shows exact pressure of steam. Safety valve releases steam automatically should pressure exceed 20 pounds. On Ward's Steam Pressure Cooker only one screw need be tightened and cooker is ready for operation.

What Capacity Do You Desire?
186 E 1461—Eight Quart size. Rack insert will hold two utensils. Shipping weight, 11 pounds. **\$15.95**
186 E 1462—Nine Quart size. Rack insert will hold three utensils. Shipping weight, 12 1/2 pounds. **\$18.45**
186 E 1463—Thirteen Quart size. Rack insert will hold three utensils. Shipping weight, 18 pounds. **\$21.95**
186 E 1464—Hotel and Canner size. Capacity 21 quarts. Rack inserts will hold three utensils. Shipping weight, 20 pounds. **\$27.95**

Steam Cooker

It cooks four vegetables at one time over one gas stove burner or stove opening—saves 75 per cent of the gas or fuel bill. Onions, cabbage, puddings and potatoes can be prepared at one time without any of them partaking of the flavor or odor of the others.

It requires no worry, no attention, the food cannot burn. Consists of 4 separate compartments, each 9 inches diameter. Made of high-grade charcoal tin throughout. Shipping weight, 7 pounds. **486 E 1413 \$1.98**

Windsor Duplex Fireless Stoves

Do your friends go away praising the good things you always serve? They will if you use a Windsor Duplex Fireless Stove. Makes delicious and juicy treats of the cheaper cuts of meat when stewed, roasted or boiled in the Windsor Duplex.

It is easy to operate and cooks the food thoroughly. Takes away the danger of burning too. A meal for a large family or a small one may be cooked with the same ease.

The cooker has patented steam vents which enable it to bake bread, pies, cakes and roast meat to a golden brown.

Heat the roasting discs for 10 or 15 minutes, place them in the well with the food on them, close the cooker and then forget about the meal until time to eat it.

The Windsor Duplex is a practical and convenient piece of furniture for the modern kitchen. A full set of directions and a book of tasty recipes sent with each cooker.

The Double Windsor Duplex
 The Double Windsor Duplex has a cooking capacity of 18 quarts. It is strongly made of sheet metal, lined with aluminum, which accounts for its surprising lightness. Automatic steam vent in lid.

It is equipped with three aluminum vessels. One 10-quart and two 4-quart, three large baking and roasting discs, disc lifter, folding baking rack, aluminum mat and book of recipes. Cabinet is 28 inches long, 12 1/2 inches wide, 18 inches high. Equipped with light rolling casters, so that it can be moved about easily. Furnished with or without legs. **Not Mailable.**

186 E 1471—Without Legs. Shipping weight, 126 pounds. **\$24.50**
186 E 1472—With Legs. Shipping weight, 160 pounds. **\$27.45**

The Single Windsor Duplex
 The Single Windsor Duplex has a smaller cooking capacity but its work is just as efficient as the larger model. It is aluminum lined and just as strongly made. The single model is best adapted for use in small kitchens. Furnished with two aluminum vessels, 8-quart and 4-quart, two large baking and roasting discs, automatic steam vent in lid, disc lifter, folding baking rack, aluminum mat and book of recipes. Shipping weight, 60 pounds. **186 E 1473 \$16.65**

Bread and Pastry Board
 A most perfect board for the preparation of pastry. Has a specially prepared tin surface. No scraping or scouring required; no bad odors which arise from soft boards. It is mounted on a strong three-ply wood base. Size, 19x21 1/4 inches. Shipping weight, 5 pounds. **86 E 1587—Each \$1.48**

Genuine Van Deusen Baking Set
 Made of best charcoal tin. Consists of 1 Round Loaf Mould, 8 inches diameter; 2 Square Layer Moulds, 7 1/2 inch diameter; Egg Whip Measuring Cup. We also include a copy of Scientific Cake Rules and Recipes with each Baking Set.

With this set you are assured of success in baking the most delicate cakes. Requires absolutely no greasing. Instructions tell exactly how to go about each operation. Shipping weight, about 4 pounds. **86 E 1578 \$1.39**

Sheet Iron Fry Pans
86 E 1426—Polished handle. Cool

| Size | Top | Ship. Wt. | Price |
|------|--------------|-----------|-------|
| 1 | 8 3/4 inches | 13 ounces | 24c |
| 3 | 9 1/2 inches | 17 ounces | 34c |
| 6 | 12 inches | 25 ounces | 48c |

Seamless Steel Skillets—Cold Handles
 Smooth inside. Shipping weights, 2, 2 1/2 and 3 pounds.

86 E 1402—Size, Number 7. Top diameter, 9 1/4 inches. **30c**
86 E 1403—Size Number 8. Top diameter, 10 1/2 inches. **35c**
86 E 1404—Size Number 9. Top diameter, 11 1/4 inches. **48c**

Extra Heavy Steel Spider
86 E 1428—Polished.

| Size | Bottom Diam. In. | Shipping Wt. Lbs. | Price Each |
|------|------------------|-------------------|------------|
| 7 | 8 | 2 1/2 | 59c |
| 8 | 9 | 3 1/2 | 69c |
| 9 | 10 | 4 1/2 | 98c |
| 10 | 11 | 5 1/2 | 98c |

Heavy Tin Pot Cover Set
86 E 1711—Consists of one each, 9, 9 1/2, 10, 10 1/2, 11, 11 1/2-inch covers and wire rack. Shipping weight, about 2 1/2 pounds. Price, per set. **67c**

Extra Heavy Retinned Steel Dish Pans
86 E 1606

| Capacity | Shipping Weight | Price |
|-----------|-----------------|--------|
| 12 quarts | 8 pounds | \$1.48 |
| 14 quarts | 13 pounds | 1.79 |
| 18 quarts | 17 pounds | 1.98 |

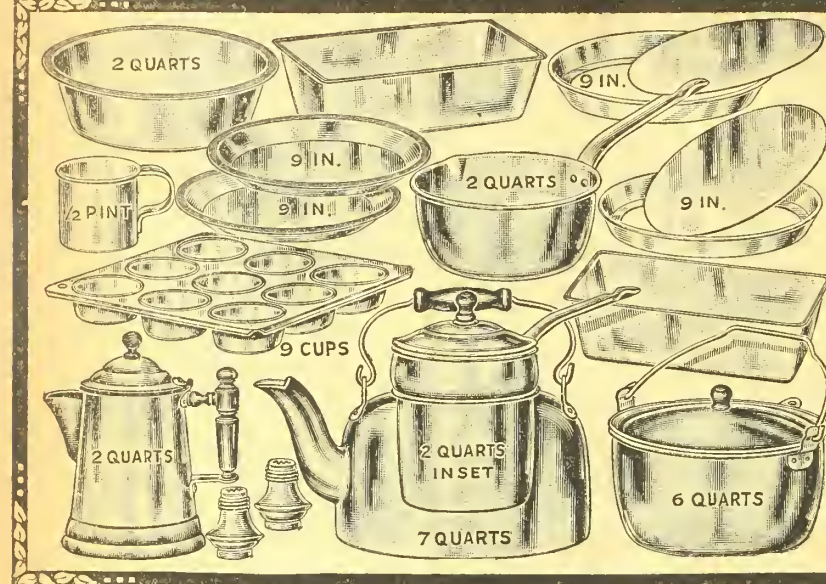
Extra Heavy Retinned Steel Bread Raisers
86 E 1610

| Capacity Quarts | Shipping Weight, Pounds | Price |
|-----------------|-------------------------|--------|
| 10 | 8 | \$2.25 |
| 13 | 9 | 2.65 |
| 17 | 21 | 3.98 |
| 21 | 23 | 4.48 |

Steel Roaster
 Roasts to a turn. Top is headed so that condensation must drip over meat and give perfect continuous basting. Lower pan has deep offset rim for top of pan to rest in. Size, 18x12x8 inches. Will fit any oven 13x19 inches, takes a large roast or fowl. Easily kept clean. Shipping weight, 5 1/2 pounds. **86 E 1424 \$1.45**

Ward's Royal Aluminum
MAKE your kitchen a more interesting place in which to work. Change from old, heavy kitchen utensils to bright silvery Royal Aluminum Ware.

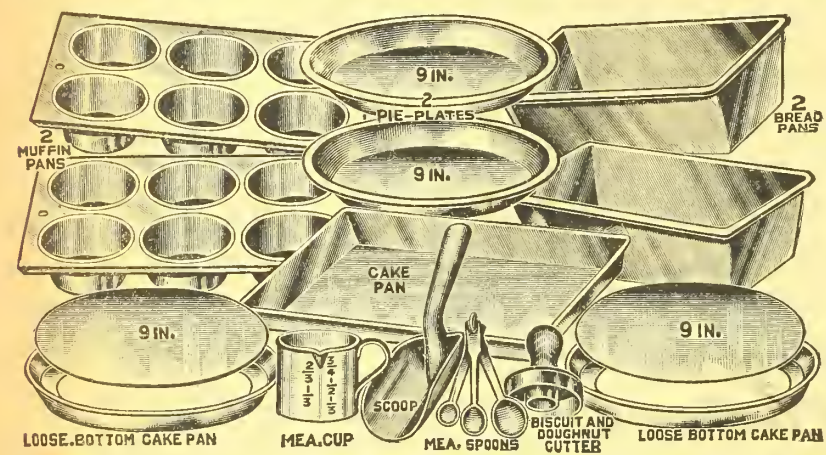
Ward's Royal



5-Piece Royal Aluminum Set

Each silvery bright utensil represents the latest improvements in both design and convenience. Set contains the following pieces of Royal Aluminum Ware: Combination Tea Kettle and Double Boiler, (7-quart Tea Kettle with 2-quart Inset); 6-quart Convex Kettle; 2-quart Sauce Pan; 2-quart Pudding Pan; two 9-inch Pie Plates; 2-quart Coffee Pot; 2 Bread Pans; One 9-cup Muffin Pan; 2 Cake Pans; one ½-pint Cup and Salt and Pepper Shakers. Shipping weight, 10 pounds.
486 E 1188 \$10.45
Per Set.....\$10.45

\$10.45



Contains these important pieces: Two Bread or Cake Pans, 9½ x 2½ x 5½ inches; two loose-bottom 9-inch Cake Pans; two deep 9-inch Pie Plates; one 12x3½ inch Cake Pan; two 6-Cup Deep Muffin Pans; one combination Biscuit and Doughnut Cutter; one Measuring Spoon Set (3 pieces); one Flour Scoop and one Measuring Cup. Shipping weight, 5 pounds.
486 E 1169 \$4.79
Per set.....\$4.79

\$4.79



12-In-1 Aluminum Set

\$2.48

Used in thousands of homes women have combined economy with efficiency. The five big pieces illustrated above form all the utensils shown in smaller illustrations. Set consists of quart kettle and cover, perforated and bottom pans, 2½ quarts each, and pan tube with bottom. Nests into one part pan.

Each piece in this set is of sea Royal Aluminum. Smooth and kept clean. Shipping weight, 3 pounds.
486 E 1067—
Complete set.....\$2.48

Cereal Cooker

Preserving Kettle

Strainer or Colander

Steamer Set

Tube Cake Pan

Flake Roaster

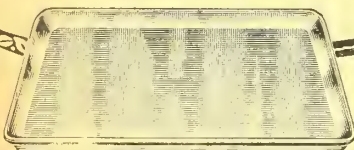
Combination Cooker

Self-Basting Roaster

Casserole or Bake Dish

Look for this Trade Mark

\$1.69 Ward's Royal Aluminum Serving Tray



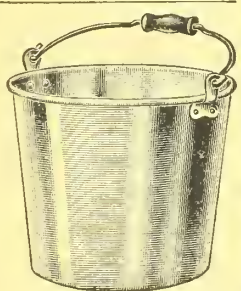
Splendid for home use as well as Restaurant or Cafeteria use. Made of pure Royal Aluminum, plain finish.

| Article Number | Size Inches | Ship. Wt. | Each |
|----------------|-------------|-----------|--------|
| 86 E 1196 | 16½ x 12 | 1½ | \$1.69 |
| 86 E 1197 | 18 x 14 | 1½ | \$2.25 |

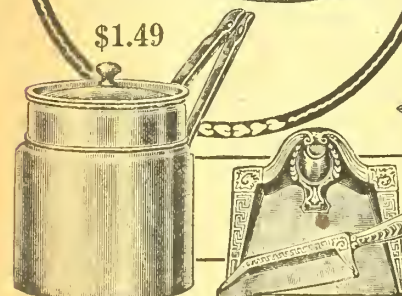
Royal Aluminum Pails

86 E 1045
Seamless. Especially desirable for dairy use. Shipping weights, 1½ to 2 pounds.

| Cap. | Qts. | Each |
|------|------|------|
| 8 | 1.95 | |
| 10 | 2.25 | |
| 12 | 2.48 | |



\$1.49



Royal Double Boilers

86 E 1006

| Cap. Qts. | Ship. Wt. | Each |
|-----------|-----------|--------|
| 1½ | 2 | \$1.49 |
| 2 | 2½ | 1.85 |
| 3 | 3½ | 2.15 |

Crumb Tray Set

86 E 1120—Neatly decorated with oriental design. Satin finish. 8½-in. tray and 10-in. scraper. Shipping weight, 1 lb.
Each.....89c

\$2.25 Extra Heavy Aluminum Tea and Water Kettles

486 E 1015—Size, No. 7. Capacity, 5 quarts. Shipping weight, about 3 pounds. Each.....\$2.25
486 E 1016—Size, No. 8. Capacity, 7 quarts. Shipping weight, about 4 pounds. Each.....\$2.98
486 E 1017—Size, No. 9. Capacity, 8 quarts. Shipping weight, about 5 pounds. Each.....\$3.75

Royal Coffee Pots

86 E 1022

| Cap. Quarts | Ship. Wt. Oz. | Each |
|-------------|---------------|--------|
| 1½ | 24 | \$1.48 |
| 2½ | 26 | 1.98 |
| 3½ | 30 | 2.25 |

Royal Tea Pots

86 E 1021

| Cap. Quarts | Ship. Wt. Oz. | Each |
|-------------|---------------|--------|
| 1½ | 18 | \$1.69 |
| 2 | 22 | |

The Royal Housekeeper

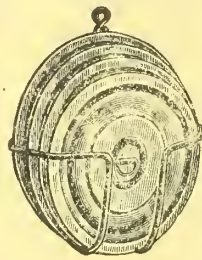
Providing three square meals 365 days in the year means a lot of wear and tear on ordinary kitchen utensils. That is why we so highly recommend Royal Aluminum Ware—strong as iron, yet silvery in its attractiveness—light in weight, too.



Royal Cake Turner



Royal Potato Masher



Royal Aluminum Pot Cover Sets

Heavy aluminum ringed pot covers. Will not rust. Very neat. Set consists of one each, 8, 9½, 10 and 11-in. cover and wire rack. Ship. wt., 2 lbs.
86 E 1014—98c
Each.....98c



Royal Strainers

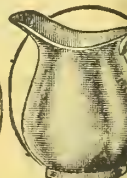
86 E 1055—Perforated bottom. Seamless. Diameter 6½ inches. Shipping weight, 12 ounces.
Each.....49c

Royal Soup Ladle

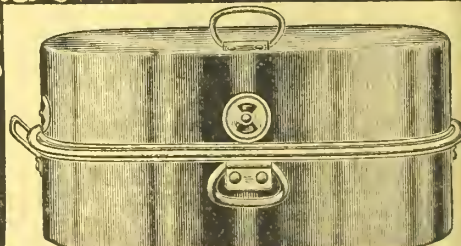
Royal Water Dipper



Royal Dripless Syrup Pitcher
86 E 1149
Removable lip. Self-closing spring cover. Polished finish. 1-pint size. Shipping weight, 1 pound. Each.....89c



Royal Pitcher
86 E 1149
For water, etc. A new, useful shape. Perfectly smooth. Shipping weight, 2½ quarts. Shipping weight, 1 pound. Each.....\$1.49



Royal Aluminum Double Roaster

Highly polished. Body and cover fit snugly, retaining all the juices and preventing shrinkage of meat. Tinned steel wire handles. Self-basting cover has two air vents.

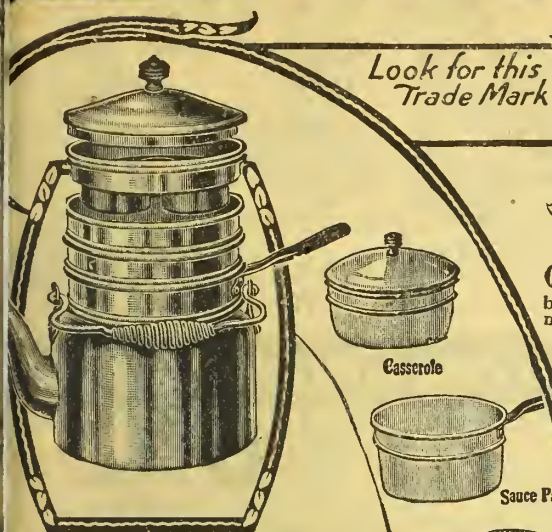
| Article Number | Size Inches | Ship. Wt. Lbs. | Each |
|----------------|---------------|----------------|--------|
| 486 E 1198 | 16½ x 11 x 7 | 4 | \$4.48 |
| 486 E 1199 | 17½ x 12 x 8½ | 5 | 5.69 |

SELF BASTING



Aluminum Ware

Royal Aluminum Ware
ONLY heavy gauge, pure aluminum is used in the construction of these utensils. That's why they always give such splendid service.



Look for this Trade Mark



QUALITY is built into every utensil bearing this trade-mark. Its low cost makes it doubly desirable.

Everywoman's Royal Aluminum Set

79 NOTICE the capacities — all are good practical sizes. Contains the following utensils: 4-quart tea kettle; 2-quart sauce pan; 1½-quart soup or vegetable strainer; 3-cup egg poacher and quart pudding pan. Every one of the utensils pictured along this panel is included in this set. Entire outfit rests into compact pan when not in use. Its desirable form of kitchen utensil cannot be purchased elsewhere. It is a perfect example of the manner in which we keep you in constant touch with the new ways of cooking. Shipping weight, 3½ lbs. Price, only.....\$4.79



Casserole

Sauce Pan

STEAMER

EGG POACHER

COVERED SAUCE PAN

JELLY MOULDS

Pudding Pan

Royal Covered Convex Sauce Pans

Royal Lipped Sauce Pans

86 E 1005—

| Article | Capacity | Ship. Wt. | Price |
|---------|----------|-----------|--------|
| 1003 | 6 cups | 1½ lbs. | \$1.39 |
| 1004 | 8 cups | 2½ lbs. | \$1.49 |
| 1005 | 10 cups | 3½ lbs. | \$1.59 |
| 1006 | 12 cups | 4½ lbs. | \$1.69 |

Royal Coffee Percolator

Our Leader Royal Percolator



Has cold water valve which enables you to make good coffee (starting with cold water) before the water in the pot boils, thereby extracting only the flavor and aroma without the tannic acid. A steel plate is furnished which prevents scorching of the handle when used on gas stove.

The mirror-like silvery finish adds much to the beauty of this popular paneled model. Seamless. Brews rich, fragrant coffee by percolation. Can be used on stove or gas range as stove plate is included.

| Article | Capacity | Ship. Wt. | Price |
|-----------|----------|-----------|--------|
| 86 E 1235 | 6 cups | 4 lbs. | \$5.45 |
| 86 E 1236 | 8 cups | 5 lbs. | \$5.85 |
| 86 E 1237 | 11 cups | 6 lbs. | \$6.25 |

Extra Glass Percolator Tops
86 E 1084—Will fit any standard size percolator. Shipping weight, 5 ounces. Price, each.....5c

Choice 10-Piece Royal Aluminum Set

A beautiful, handy and economical 10-piece kitchen assortment of heavy, pure bright Royal Aluminum. Made seamless. Consists of the articles most needed in the kitchen daily. This set will be appreciated by the particular housewife because it makes cleaning easy and adds much to the attractiveness and tidiness of the kitchen.

86 E 1163—Shipping weight, about 10 pounds. Price, set complete.....\$4.98

Royal Tea Kettle and Double Boiler



It can be used either as a Tea Kettle or Double Boiler, as the occasion may require. Tea Kettle is size Number 8, capacity, 7 quarts. Removable insert or double boiler has a 2-quart capacity. Interchangeable cover fits both vessels. Shipping weight, about 7 pounds.

86 E 1018—Entire Set, only.....\$3.48

Royal Aluminum Tea Pot



A seamless Royal Aluminum Tea Pot equipped with tea ball which is easily raised to top when tea is brewed and does away with the need of a strainer. Made in the popular paneled design. Capacity, 1¼ quarts. Shipping weight, 4 pounds.

86 E 1175—Price.....\$1.89

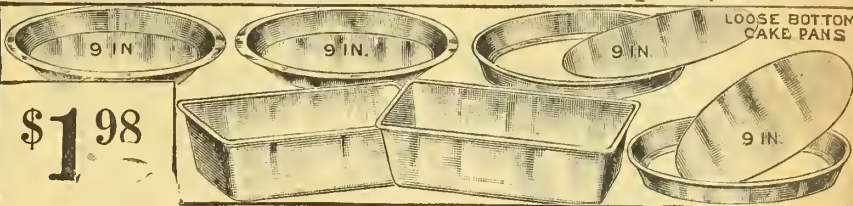
Royal Preserving Kettles

Extra Heavy 86 E 1004—

| Capacity | Ship. Wt. | Price |
|----------|-----------|--------|
| Quarts | Pounds | Each |
| 4 | 1½ | \$1.98 |
| 6 | 2½ | 1.32 |
| 8 | 3 | 1.55 |
| 12 | 3½ | 2.19 |
| 16 | 4½ | 2.79 |

Royal Dinner Pail

86 E 1069—Seamless. Capacities: Lower vessel 4½ quarts, Insert 3 quarts. Diameter, 7½ inches. Shipping weight, 2 pounds. Price, each.....\$1.98



\$1.98

6-Piece Royal Aluminum Baking Sets

The appetizing cakes, pies and bread loaves "that Mother makes" seem to taste even more delicious when baked in Royal Aluminum—the sanitary, silvery bright ware. This 6-piece Special Set contains the following Royal Aluminum Baking Utensils: Two Bread Pans, two 9-inch Pie Plates and two 9-inch Cake Pans. Shipping weight, 4 pounds. 86 E 1189—Price, entire set.....\$1.98



Royal Muffin Pans

86 E 1031—

| Size | Ship. Wt. | Price |
|--------|-----------|-------|
| | Oz. | |
| 6 cups | 16 | 79c |
| 9 cups | 20 | 98c |



Royal Mixing Bowls

86 E 1190—Diameter, 9 inches. Capacity, 3 quarts. Shipping weight, about 15 ounces. Price.....89c
86 E 1191—Diameter, 11 inches. Capacity, 4½ quarts. Shipping wt., about 18 ounces. Price.....\$1.10



Royal Aluminum Baking Pan

86 E 1062—Smooth and seamless. Easy to clean. Excellent value. Size, 14½x10x2 inches. Shipping weight, 2 pounds. Price, each.....\$1.48



Royal Pudding Pans Extra Heavy Gauge

| Capacity | Shipping | Price |
|----------|----------|-------|
| Quarts | Wt., Oz. | |
| 1 | 10 | 34c |
| 2 | 12 | 49c |
| 3 | 16 | 69c |
| 4 | 24 | 83c |



Royal Oblong Bread and Cake Pans

86 E 1033—Seamless. Highly polished. Size, 9½x5½x2¼ inches. Shipping weight, about 12 ounces. Price, each.....49c



Royal Cake Pan

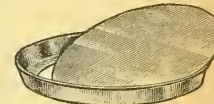
86 E 1028—Size, 9 inches. Shipping weight, 9 ounces. 2 for 49c



Royal Pie Plates

86 E 1027—

| Size | Shipping | Price |
|------|-----------|-----------|
| In. | Weight | of 2 |
| 9 | 8 ounces | 2 for 45c |
| 10 | 10 ounces | 2 for 53c |



Royal Loose Bottom Cake Pan

86 E 1029—Size, 9 inches. Shipping weight, 6 ounces. Two for.....65c



Royal Combination Funnel

86 E 1059—Fruit Jar Filler, Funnel, Cup, Coarse and Fine Strainer all in one. Top diameter, 5½ inches. Shipping weight, about 9 ounces. Price.....35c



Royal Wash Basin

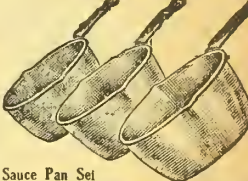
86 E 1046—Made seamless.

| Diam. | Ship. Wt. | Price |
|--------|-----------|-------|
| Inches | Ounces | |
| 11½ | 10 | 79c |
| 13 | 12 | 98c |



Royal Colander

Aluminum polished finish. Tinned steel wire handles. Diam. at top, 11 inches. Depth, 3½ in. Ship. wt., 1½ lbs. 86 E 1164 Price.....\$1.39



Royal Sauce Pan Set

86 E 1101—Highly polished. Seamless. Convenient lip for pouring. The three most needed sizes—1½-quart, 2-quart and 3-quart. Ship. wt., 3½ lbs. Price.....\$1.79

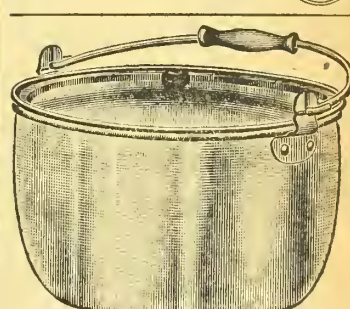
Real Home Cooking served hot, makes hungry men contented—children happy—and mothers pleased. And Royal Aluminum Ware helps to keep it pure and untainted. It is seamless with no crevices to collect dirt. Have you ordered yours?

Royal Sink Strainer
Will fit in the corner of any sink. Made of Royal Aluminum—bright finish. Extreme length, 11 inches. Depth, 11 inches. Shipping weight, 1½ pounds.



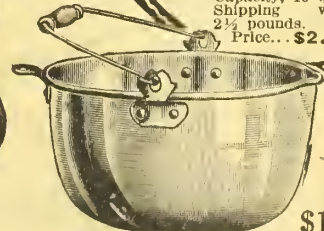
86 E 1179 39c
Price.....39c

Handles firmly fastened with countersunk rivets, the kind that will never pull out.



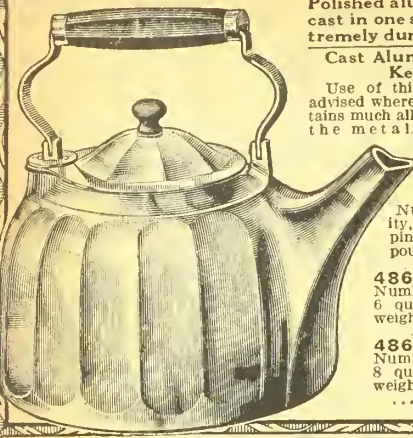
Royal Convex Kettles

86 E 1001—Capacity, 4 quarts. Shipping weight, 1½ pounds. Price, each.....\$1.48
Capacity, 6 quarts. Shipping weight, 1½ pounds. Price.....\$1.89
Capacity, 8 quarts. Shipping weight, 2½ pounds. Price.....\$2.19
Capacity, 10 quarts. Shipping weight, 2½ pounds. Price.....\$2.48



\$1.98

Heavy Cast Aluminum Ware



Polished aluminum of the highest quality, smoothly cast in one solid piece. No joints, seams or folds. Extremely durable, yet light in weight. Heats quickly.

Cast Aluminum Tea Kettles

Use of this kettle is not advised where the water contains much alkali, as it affects the metal. Page 686 contains tea kettles adapted to such conditions.

486 E 1275 Number 7. Capacity, 5 quarts. Shipping weight, 4 pounds. **\$4.98**

486 E 1276 Number 8. Capacity, 6 quarts. Shipping weight, 4 1/2 pounds. **\$5.48**

486 E 1277 Number 9. Capacity, 8 quarts. Shipping weight, 5 pounds. **\$5.98**



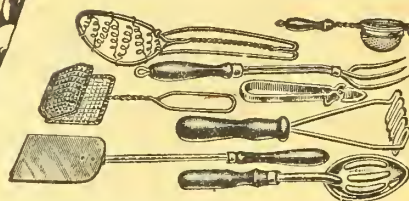
Cast Aluminum Skillets

| Size No. | Diam. Inches | Price |
|----------|--------------|--------|
| 7 | 9 1/2 | \$2.48 |
| 8 | 10 1/2 | \$2.89 |
| 9 | 11 1/2 | \$3.25 |

Order by number 86 E 1082 and state size required. Shipping weight, 2 to 2 1/2 pounds.

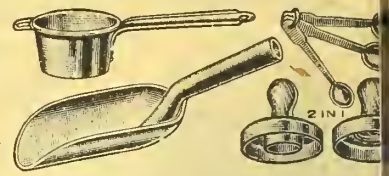
Aids for Making

Two Good Assortments Needed in Every Kitchen



8-Piece Retinned Steel Kitchen Set

Set consists of a cake turner, potato masher, wire egg whp, can opener, flesh fork, coffee strainer, soap saver and mixing spoon. Shipping weight, 2 pounds. **86 E 1824—Set of 8 pieces. 79c**



Royal Aluminum Ware 4-Piece Set

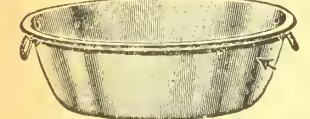
Set comprises a Tea or Coffee Strainer, Biscuit Doughnut Cutter, Scoop and Measuring Spoon. Shipping weight, 1/2 pound. **86 E 1187—Set of 4 pieces.**

4 Royal Aluminum Specials

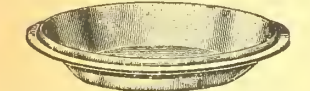
See Our Complete Selections on Pages 686 and 687



Outfit Complete—Form and Roaster



Lower Section as Baking Pan



Cover Makes an Ideal Dish Pan

Combination Bread Raiser, Roaster and Dish Pan

A very practical utensil for the modern kitchen. It comprises a roaster, bread raiser, oval dish pan and baking pan, yet contains only two snug-fitting parts, saving money and space. Well made of brightly polished aluminum ware. Seamless, smooth and easily kept clean. A set that has won universal favor among housekeepers. Size, 16x12x7 1/4 inches over all. Lower part has strong handles. Shipping weight, 5 pounds.

486 E 1148 **\$3.95**

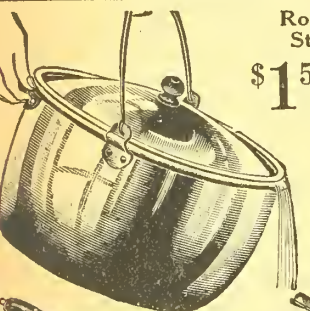
Price, complete

Royal Aluminum Strainer Kettle

\$1.59

Six Qt. Size. Protects the Hands from Escaping Steam. Shipping weight, 3 1/2 and 4 pounds.

| Article Number | Cap. | Price |
|----------------|-------|--------|
| 486 E 1158 | 6 qt. | \$1.59 |
| 486 E 1159 | 8 qt. | 1.98 |



Royal Aluminum Skillet

86 E 1060—Extra heavy stamped sheet aluminum (not cast). Will not warp.

| Size Inches | Ship. Pounds | Price |
|-------------|--------------|--------|
| 9 | 2 1/2 | \$1.89 |
| 10 | 2 3/4 | 2.29 |
| 11 | 3 | 2.48 |

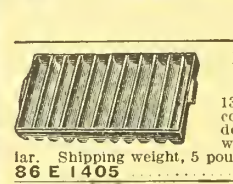
Royal Aluminum Fry Pan

86 E 1061—Seamless.

| Size Inches | Ship. Wt. | Price |
|-------------|-----------|--------|
| 7 1/2 | 16 oz. | \$.55 |
| 9 1/4 | 22 oz. | .98 |
| 10 1/4 | 29 oz. | 1.48 |



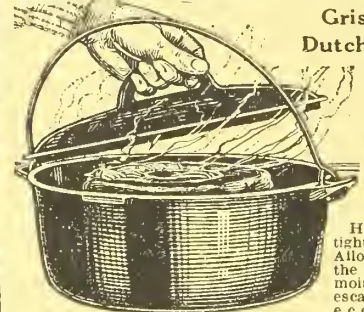
The Simple Way of Making Delicious Waffles



Makes Delicious Crisp Corn Bread Sticks. Heavy cast iron. Size, 13 1/2 x 7 1/2 inches. Has 11 compartments for those crisp, delicious corn bread sticks which are becoming so popular. Shipping weight, 5 pounds. **86 E 1405 98c**

Griswold Dutch Oven

Saves 11 Ounces in Cooking a 5 Pound Roast



Makes tender, juicy treats of the cheaper cuts of meat, which are just as nourishing as the more expensive. Can be used for roasting, boiling, baking or frying. Unexcelled for cooking pot roasts, etc. Smoothly finished inside.

86 E 1458—Capacity, 6 quarts. Shipping weight, 12 pounds. **\$3.15**

86 E 1459—Capacity, 8 quarts. Shipping weight, 14 pounds. **3.69**

Cast Iron Ham or Wash Boilers

Smooth cast iron. White porcelain enameled inside. Full size and weight.



186 E 2328—Number 8. Size, 23 1/2 x 11 1/2 x 9 1/4 inches. Shipping weight, 30 pounds. **\$5.25**

186 E 2329—Number 9. Size, 27 1/2 x 15 1/2 x 10 inches. Shipping weight, 42 pounds. **\$6.75**



Griswold Cast Iron Stove Kettles

Flat bottom. Smoothly polished inside.

86 E 1442—Size, Number 8. Capacity, 7 quarts. Shipping weight, about 9 pounds. **\$2.35**

86 E 1443—Size, Number 9. Capacity, 9 quarts. Shipping weight, about 10 pounds. **\$2.89**

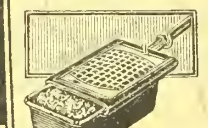
Extra High Grade Cast Iron Sugar, Wash or Butchering Kettles

Full size and weight. For making soap, cooking feed, rendering lard, butchering, etc. Heavy ears and legs. Wrought iron handle.

| Article Number | Size | Holds Gal. | Diam. Inside Inches | Ship. Weight Lbs. | Price Each |
|----------------|------|------------|---------------------|-------------------|------------|
| 186 E 2333 | 4 | 18 | 21 1/2 | 62 | \$6.75 |
| 186 E 2334 | 5 | 21 | 22 1/2 | 69 | 7.45 |
| 186 E 2335 | 6 | 25 | 24 1/2 | 86 | 8.45 |
| 186 E 2336 | 7 | 30 | 26 1/2 | 108 | 10.45 |
| 186 E 2337 | 8 | 40 | 27 1/2 | 145 | 15.95 |

Steel Corn Popper

86 E 1854—Cover operated by thumb at end of handle. Prevents burning of fingers. Size, 7 1/2 x 9 1/2 x 2 1/2 in. Ship. wt., **39c**



Fruit Press and Potato Ricer

86 E 1964—Extra heavy. Unexcelled for results. Removable, seamless, retinned steel cup. Diameter of cup, 3 1/2 inches. Height, 3 inches. Black japanned frame. Easily cleaned. Shipping weight, 2 pounds. **45c**



Bottle Capper

Will not damage bottle necks. Clamps cap securely over bottle top. Bottles up to 13 1/2 inches height. Easily adjusted. Has one of the perfect lever action any capper on the market. Holes in base for fastening to work bench. Entirely of cold rolled steel. Shipping weight, about 10 pounds. **86 E 2379 \$1.19**



Crown Bottle Capper. 86 E 2382—Shipping weight, of 2 gross, 200 lbs. Price, of 2 gross (288 only). **\$2.98**

The Secret of Perfect Bread

Majestic Bread Maker

An easier, quicker and cleaner way of preparing perfect bread. Two to ten loaves are thoroughly kneaded in about 3 minutes' time.

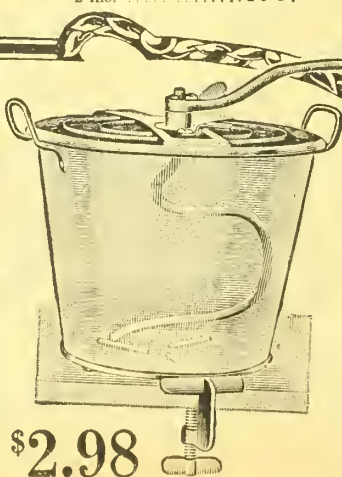
It is usually the lack of thorough kneading that spoils bread—it is full of unbroken starch cells and, therefore, indigestible. The Majestic mixes and kneads the dough with scientific accuracy, thoroughly and evenly, so that the bread is free from unbroken starch cells, firm, light and easily digestible.

It works successfully with any kind of flour that is ordinarily used for making bread. Well made of heavy charcoal tin, polished. Mixer or kneader handle are made of steel.

486 E 1529—10-quart size. Capacity, 2 to 6 loaves. Shipping weight, about 9 pounds. **\$2.98**

486 E 1530—16-quart size. Capacity, 4 to 10 loaves. Shipping weight, about 13 pounds. **\$3.98**

\$2.98



Nickel-Plated Copper Ware



Tea Pots

86 E 1205

| Capacity Pints | Ship. Wt. Pounds | Price |
|----------------|------------------|--------|
| 2 1/2 | 2 1/2 | \$1.29 |
| 3 1/2 | 2 3/4 | 1.48 |
| 4 1/2 | 3 | 1.65 |



Coffee Pots

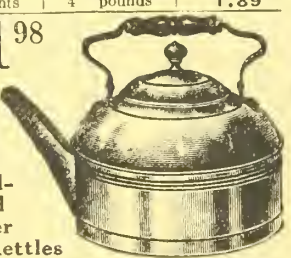
86 E 1208

| Capacity | Shipping Weight | Price |
|-------------|-----------------|--------|
| 3 1/2 pints | 2 1/2 pounds | \$1.39 |
| 4 1/2 pints | 3 pounds | 1.59 |
| 7 1/2 pints | 4 pounds | 1.89 |

\$1.98

Nickel-Plated Copper Tea Kettles

| Art. No. | Size | Capacity | Ship. Wt. | Price |
|------------|------|--------------|-----------|--------|
| 486 E 1201 | 7 | 4 1/2 quarts | 6 pounds | \$1.98 |
| 486 E 1202 | 8 | 6 quarts | 7 pounds | 2.15 |
| 486 E 1203 | 9 | 7 1/2 quarts | 8 pounds | 2.39 |



Tempting Dishes

Food is Life's Most Important Food—These Boxes Protect It!



Black Japanned Flour Boxes

A sanitary container, made of heavy tin. Keeps the flour free from dust and dampness.

486 E 1554—Capacity, 50 pounds. Height, 19 inches. Shipping weight, 10 pounds. **\$1.89**

186 E 1555—Capacity, 100 pounds. Height, 26 inches. Shipping weight, 13 pounds. **\$2.75**

Not Mailable.

Japanned Bread Box

Black japanned box that will look practically new for a lifetime.

86 E 1558—Average size, 15 1/2 x 10 x 9 1/4 inches. Shipping weight, 15 pounds. **\$1.39**

86 E 1559—Average size, 18 x 12 x 11 1/2 inches. Shipping weight, 16 pounds. **\$1.59**



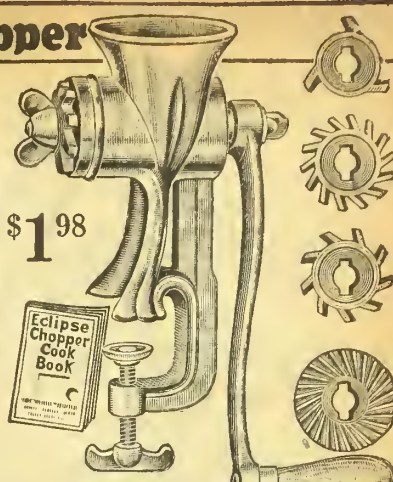
Eclipse Food Chopper

Chops meats or vegetables (raw or cooked) fruits, nuts, bread, eggs, fish, etc., and does the work easily without mashing, tearing or grinding. Will chop either fine, medium or coarse. Made of gray iron, heavily tinned to prevent rusting. Has no complicated parts, is self-cleaning and self-sharpening. With reasonable care it will last a lifetime.

86 E 1916—Family size. Chops up to 2 pounds per minute. Diameter of hopper, 3 1/2 inches. Furnished with 4 cutters—one each, for cutting coarse, medium, fine and a nut grinder. Shipping weight, 5 1/2 pounds. **\$1.98**

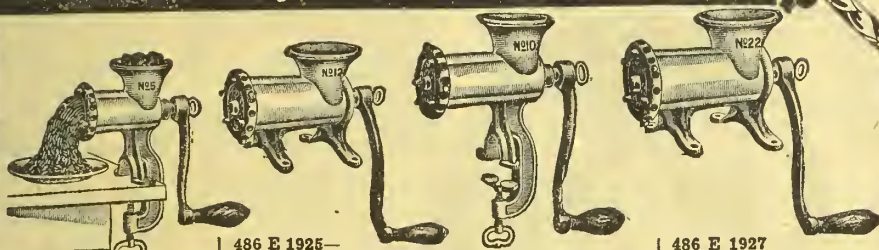
86 E 1917—Medium Size. Chops up to 2 1/2 pounds per minute. Diameter of hopper, 4 inches. Four cutters—one each for cutting coarse, medium, fine and a nut grinder. Shipping weight, 6 pounds. **\$2.35**

Book of Recipes Included



The Famous Enterprise Food Chopper

The well-known Enterprise Meat Cutter Food Choppers do not pull the meat to pieces nor squeeze out the juice, nourishing juices—the knife revolves against the inner surface of the plate and its sharp edges cut the meat.



86 E 1924—Enterprise Meat Cutter Number 5. Cast iron, heavily retinned. Family size. Chops 1 1/2 pounds meat a minute. One steel plate with 3/16-inch holes. Shipping weight, 6 lbs. **\$2.67**

486 E 1925—Enterprise Meat Cutter Number 12. Cast iron, retinned. This chopper is exactly like the size 10 only it has legs instead of clamps and is to be screwed to the table. Shipping weight, about 10 pounds. **\$4.00**

486 E 1926—Enterprise Meat Cutter Number 10. Very popular size. Chops 3 pounds meat a minute. Cast iron, heavily retinned. Plate has standard 3/16-inch holes. Shipping weight, about 10 pounds. **\$4.45**

486 E 1927—Enterprise Meat Cutter Number 22. For butchers, farmers, hotels, etc. Chops 4 pounds of meat a minute. Cast iron, retinned. Plate has standard 3/16-inch holes. Shipping weight, 18 pounds. **\$7.12**

Our Lowest Priced Enterprise Chopper

86 E 1922—Enterprise Chopper Number 602. Cast iron, tinned. Complete with three assorted knives and nut butter cutter. Chops 2 1/2 pounds meat a minute. Shipping weight, 6 pounds. **\$2.45**

86 E 1923—Stuffing Attachment for above. Shipping weight, 8 ounces. **98c**

Extra Cutters and Stuffers for Enterprise Choppers

| Chopper Number | 5 | 10 | 12 | 22 | 32 |
|---|-----|-----|-----|------|------|
| E 1934—Knives | .30 | .40 | .40 | .60 | .80 |
| E 1935—Plates, 3/16-in. | .40 | .70 | .70 | 1.00 | 1.30 |
| E 1936—Plates, 3/8-in. | .40 | .70 | .70 | 1.00 | 1.30 |
| E 1937—Stuffing Attachment, 1/4-inch tube | .67 | .74 | .74 | .93 | 1.11 |
| E 1938—Stuffing Attachment, 1 1/4-inch tube | .78 | .93 | .93 | 1.11 | 1.35 |

Improved Cherry Stoner

86 E 2355—Does not crush the fruit or cause loss of juice. The cherries are pitted very rapidly with this modern device. Machine is made of cast iron, retinned and cannot rust. Shipping weight, 5 pounds. **\$1.69**

Enterprise Raisin and Grape Seeder

86 E 2306—Seeds 1 pound of raisins in 5 minutes. Works rapidly and effectively, seeding raisins wet or dry, better if wet. Cast iron. Shipping weight, 3 pounds. **\$3.10**

Grater and Slicer

86 E 1879—Heavy Tin. Has coarse and fine grater, also two cutters for vegetables and slaw. Size of bottom, 3 1/2 x 4 1/2 inches. Shipping weight, 10 ounces. **15c**

Windsor Fruit, Wine, Jelly and Lard Presses

Please do not confuse these highest quality presses with cheap substitutes sold elsewhere. Made extra heavy and strong. All metal parts are coated with pure block tin. Easily cleaned.

486 E 1953—2-quart size. Shipping weight, about 14 pounds. **\$3.69**

486 E 1954—4-quart size. Shipping weight, about 25 pounds. **\$5.98**

486 E 1955—10-quart size. Shipping weight, about 44 pounds. **\$9.50**

Sausage Stuffer

Well made of japanned iron with tin spout. Complete with screws.

86 E 1941—Family size, Number 1. Shipping weight, 18 pounds. **\$1.65**

Noodle Cutter

86 E 1792—Has 9 steel blades. Length, 5 1/2 inches. Shipping weight, 4 ounces. **29c**

Kraut Vegetable and Slaw Cutter

Heavy and durable Kraut Cutter. Made of Sugar Steel. Extra quality steel knives.

E 2326—9x24 inches. 2 knives. Shipping weight, 10 pounds. **\$1.69**

E 2327—11x30 inches. 3 knives. Shipping weight, 15 pounds. **\$3.19**

E 2321—11x35 inches. 3 knives. Shipping weight, 22 pounds. **\$5.65**

Food Grater

86 E 1961—Grates very fine without strings. Will not clog. Unexcelled for grating potatoes, carrots, pineapple, horseradish, chocolate, cheese, etc. Cast iron frame, blue enameled. Drum made of tin, diameter, 4 inches. Shipping weight, 4 1/2 pounds. **\$1.10**

The Handy Preserver

Holds 8 One Quart Jars

Four things are necessary for successful canning. Perfectly sound fresh fruit, cleanliness, air-tight jars and perfect sterilization. The latter is accomplished with the Handy Preserver—it makes easy the sterile preserving of fruits and vegetables in their jars. Made of heavy bright charcoal tin plate. Holds eight one-quart jars. Can also be used for large ham holler, hotel corn boiler or small wash holler. Dimensions: Length, 19 inches; width, 12 1/2 inches; height, 10 inches. Full directions and recipes furnished. Shipping weight, 9 pounds. **\$3.98**

Ward's Windsor Food Choppers

A Food Chopper, besides being economical, takes away the monotony of cooking, as you can try something new every day—those delicious croquettes and meat loaf, seasoned just to the family's taste; tempting salads of left-over meats and vegetables—the entire family will appreciate the change and no one will ever guess that you are making use of left-overs or the cheaper cuts of meat. What eternally annoying question "What shall we eat?" will be entirely forgotten in your home.

486 E 1901—Small Family Size. Chops up to 2 1/2 pounds of meat per minute. Size of hopper opening, 2 1/2 x 3 1/4 inches; Length of barrel, 3 inches. Complete with self-sharpening knife and 3 steel plates, coarse, medium and fine. Shipping weight, about 5 pounds. **\$1.79**

486 E 1903—Large Family Size. Chops up to 3 pounds of meat per minute. Size of hopper opening, 2 1/2 x 3 1/4 inches; Length of barrel, 3 1/4 inches. Complete with self-sharpening knife and three steel plates, coarse, medium and fine. Shipping weight, about 5 1/2 pounds. **\$2.10**

486 E 1911—Extra Large Size. Chops up to 4 pounds of meat per minute. Size of hopper opening, 3 1/2 x 4 1/4 inches; Length of barrel, 4 1/2 inches. Complete with self-sharpening knife, and 3 steel plates, coarse, medium and fine. Shipping weight, about 8 pounds. **\$3.10**

Genuine Enterprise Sausage Stuffer, Lard and Fruit Presses

Makes sausage that remains fresh because the patented corrugated spout shuts all air out of casing.

Plate cannot jam as cylinder is hored true to size. An extra plate is furnished with each press. Has screw movement. Strong iron cutter cylinder, nicely japanned. Complete with screws for attaching.

486 E 1945—4-quart size. Shipping weight, 45 pounds. **\$9.79**

486 E 1946—6-quart size. Shipping weight, 57 pounds. **\$11.13**

486 E 1947—8-quart size. Shipping weight, 60 pounds. **\$12.46**

Parts for Enterprise Presses

Average Shipping Weights, from 1 1/4 to 3 1/2 pounds.

| Size, Number | 5 | 25 | 31 | 35 |
|------------------------------------|-----|------|------|------|
| 86E1948—Small Plunger Plates | 80c | 1.00 | 1.50 | 1.50 |
| 86E1949—Large Plunger Plates | 80c | 1.00 | 1.50 | 1.50 |
| 86E1950—Perforated Strainer Plates | 80c | 1.00 | 1.50 | 1.50 |

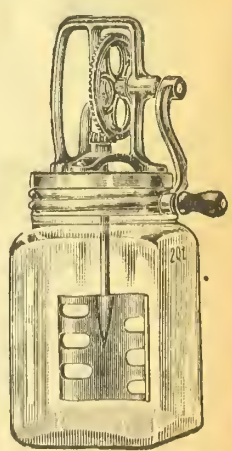


Butter Churn

In these days of high butter prices, this churn will prove to be of great value to you in housekeeping. It makes two pounds of delicious milk-charged butter out of one, by adding pint of milk and churning the mixture for about three minutes. The churn is well made with aluminum dasher. The gears mesh easily and smoothly. The jar is made of extra heavy glass. Very sanitary and easily kept clean.

Has Aluminum Dasher and High-Speed Gear Attachment

| Article Number | Cap. Qts. | Ship. Wt. Lbs. | Price Each |
|----------------|-----------|----------------|------------|
| 486 E 1690 | 1 | 6 | \$1.29 |
| 486 E 1691 | 2 | 7 | 1.48 |
| 486 E 1692 | 3 | 8 | 1.79 |
| 486 E 1693 | 4 | 9 | 2.00 |



A fireless stove will cook the entire meal. See them on page 685

Montgomery Ward & Co. Chicago

CUTLERY

\$1.79 Six Knives and Forks Heavily Nickel-Plated

Strongly made of the best grade steel, and will give long service. Heavily nickel-plated to produce high lustre and good appearance. Shipping weight, about 1 1/4 pounds.
86 E 8168—Price, six knives and six forks.....**\$1.79**

Retinned Cutlery Set

98c

Heavily tinned solid iron handle. Forks have four lines. Have the appearance of silver-plated goods. Very suitable for camping as they do not rust easily, nor do they need scouring.

86 E 8110—Price, per set of six knives and six forks. Shipping weight, 1 1/4 pounds.....**\$1.48**
 Per dozen sets.....**\$17.48**

\$7.59 Set of Six Knives and Six Forks

White Celluloid Handles

The handles never crack. Only very best steel is used in the blades and tines. More desirable than plated knives, because they can be sharpened.

86 E 8154—Per set of six knives and six forks.....**\$7.59**
 Shipping weight, 1 1/4 pounds.
86 E 8156—Knives, only. Per set of six.....**\$3.89**
 Shipping weight, 1 1/2 pounds.

Set of Six Knives and Six Forks \$2.89

Highest Quality Steel

The steel used in the manufacture of this set is of the very highest grade. The knives come in full swaged and curved pattern blades. They hold their edges remarkably well. The forks are well made of steel with a wide shank that will not give. Handles are of fine cocobolo. Ship. wt., 2 pounds.
86 E 8143—Per set of 6 knives and 6 forks.....**\$2.89**

\$4.85 Six Knives and Six Forks Dexter Cutlery

Very practical for use where cutlery of high quality is desired. The unusually shaped, keen-edged blades are especially adapted to the cutting of meats; the forks have three tines. Forks measure 7 inches over all. Knives have 4 1/2 inches blades. Shipping weight, 2 pounds.
86 E 2617—Set of 6 knives and 6 forks.....**\$4.85**

Imitation Stag Handles

Imitation of stag horn handle. They are strongly riveted and double bolstered to tang of blades. Best quality steel blades and tines.
86 E 8113—Per set of six knives and six forks.....**\$3.29**
 Shipping weight, 2 1/4 pounds.
86 E 8120—Knives only. Per set of 6.....**1.79**
 Shipping weight, 1 1/4 pounds.

\$1.89

Cocobolo Handles

Scimitar shape blades. The price is extremely low considering the quality of steel used. The six forks are of polished steel in the three tine pattern. Cocobolo handles. Shipping weight, 1 1/4 pounds.
86 E 8129—Set of 6 knives and six forks.....**\$1.89**

\$1.28

Cocobolo Handles

This low-priced set is ideal for camps, etc. where quality is not of the first importance. Has plain cocobolo handles. No holster. Scimitar blades. Three tine forks. Shipping weight, 2 1/4 pounds.
86 E 8130—Set of six knives and six forks. Price.....**\$1.28**

\$3.65

White Bone Handles

Best quality curved pattern steel blades and four prong steel forks.
86 E 8100—Per set of 6 knives and 6 forks. Price.....**\$3.65**
 Shipping weight, 2 1/4 pounds.
86 E 8102—Knives only. Price per set of six.....**\$2.10**
 Shipping weight, 1 1/4 pounds.

Cocobolo Handles

Double holstered, neatly finished cocobolo handles. The six knives have swaged scimitar shape blades. The six forks are of polished steel, three-tine pattern. Will give very satisfactory service. Shipping weight, 2 1/4 pounds.
86 E 8128—Per set.....**\$2.29**

Genuine Dexter Spatula or Mixing Knife

86 E 2608—Flexible blade; length, 6 inches. Oval enameled handle. Splendid for mixing dough. A real necessity in the kitchen. Shipping weight, 4 ounces.
 Price.....**54c**

Paring Knife Set 86 E 2629

Three high-grade knives. All have 3-inch blades, ground sharp for immediate use. Round chonized handles. Shipping weight, 6 ounces.
 Price, per set of three.....**33c**

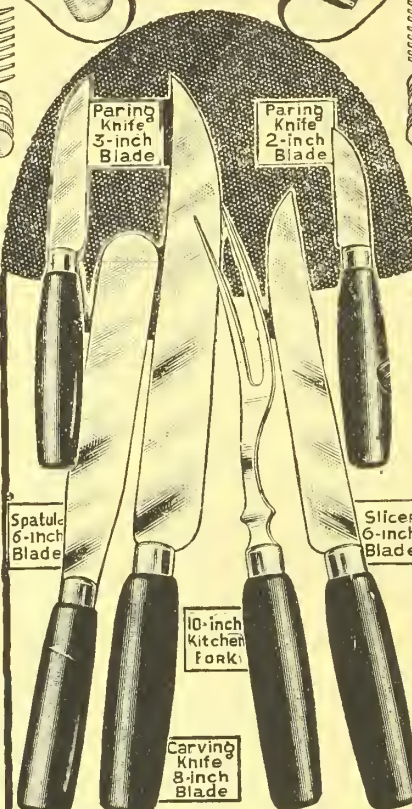
Dexter Paring Knife

86 E 2625—Paring Knife, 3-inch blade. Black enameled sure-grip handle. Shipping weight, 4 ounces.
 Price.....**20c**

Dexter

Utility Set

For general kitchen use. Good sizes. Knife has 6-inch blade. Fork measures 8 inches over all. Black enameled sure-grip handles.
 The name of Dexter on each piece is proof of its superior quality. Shipping weight, about 1 pound.
86 E 2618—Price.....**85c**



No Kitchen Complete Without This Dexter Six-Piece Domestic Science Set
 Contains spatula with 6-inch blade, two paring knives with blades measuring 2 and 3 inches, one carving knife with 8-inch blade, one slicer with 6-inch blade, one kitchen fork, measuring 10 inches over all which, when used with carving knife, makes an ideal carving set. Shipping weight, about 3 pounds.
86 E 2616—Price, set.....**\$2.49**

Retinned Tea and Table Spoons

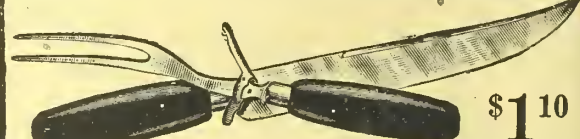
12 for 29c

86 E 1731—Tea Spoons. Shipping weight, per dozen, 11 ounces.
 Price, dozen.....**29c**
86 E 1732—Table Spoons. Shipping weight, dozen, 20 ounces.
 Price, dozen.....**58c**

Royal Aluminum Spoons

12 for 75c

86 E 1146—Tea Spoons. Shipping weight, per dozen, 3 ounces. Price, dozen.....**75c**
86 E 1147—Table Spoons. Shipping weight, dozen, 5 ounces. Price, dozen.....**\$1.35**



Dexter Carving Set

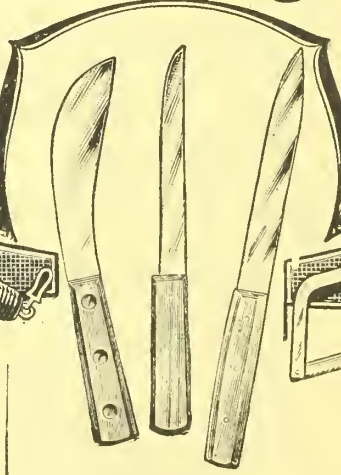
86 E 2610—Oval black enameled handles. Carver with 8-inch blade. 10-inch fork with guard and rest. Packed in a cardboard box. Shipping weight, 1 1/2 pounds.....**\$1.10**

The Blades on Lakeside Cutlery are wrought by hand from solid bars of high-grade crucible steel, single-tempered. They hold their keen edges remarkably well.

Lakeside Bread and Meat Slicer
86 E 2086—Has 9 1/2-inch best steel blade. Finely finished black walnut handle, strongly riveted to tang of blade with heavy brass rivets. Shipping weight, 6 ounces.
 Price.....**55c**

Butcher Knives
 Beech Handle Butchers' Knives. Blades are hand wrought from finest crucible steel, perfectly ground, tough tempered and keen edged. They have the proper shape and balance.
86 E 2005—6-inch blade. Shipping weight, 10 ounces. Each.....**39c**
86 E 2006—7-inch blade. Shipping weight, 12 ounces. Each.....**48c**
86 E 2007—8-inch blade. Shipping weight, 14 ounces. Each.....**59c**
86 E 2008—9-inch blade. Shipping weight, 1 pound. Each.....**69c**

Lakeside Cutlery

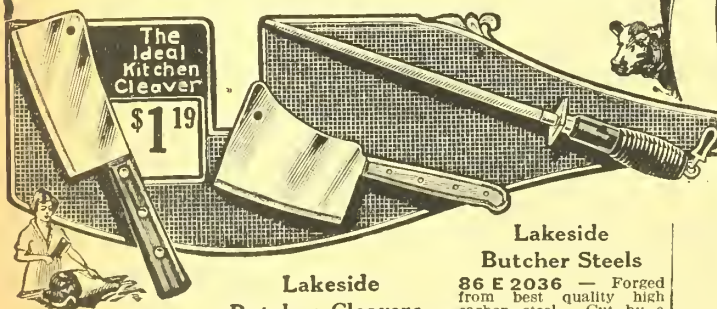


3-Piece Butcher Set

Consists of the following pieces: 1 Skinning Knife, Boning Knife and 1 Sticking Knife. All have 6-inch blades. Shipping weight of set, 1 1/4 pounds.
86 E 2027—Per Set.....**\$1.29**

Steak Knives
 Extra high grade. Polished cocobolo wood handles, secured with large brass rivets. Well balanced.
86 E 2018—10-inch blade. Shipping weight, 14 ounces. Each.....**\$1.10**
86 E 2019—12-inch blade. Shipping weight, 1 1/2 pounds. Each.....**1.48**

Extra High-Grade Butcher Knives
 Polished cocobolo wood handles secured with large brass rivets. Have the right shape and balance.
86 E 2015—6-inch blade. Shipping weight, 12 ounces. Each.....**49c**
86 E 2016—7-inch blade. Shipping weight, 12 ounces. Each.....**65c**
86 E 2017—8-inch blade. Shipping weight, 13 ounces. Each.....**79c**



The Ideal Kitchen Cleaver \$1.19

Butcher Saw Blades

\$2.25

Lakeside Butcher Cleavers

86 E 2051—Hardwood handles. High-grade solid steel, unexcelled for durability and uniform temper. Give size.

| Length Inches | Ship. Wt. Pounds | Each |
|---------------|------------------|--------|
| 7 | 1 1/4 | \$2.65 |
| 8 | 1 3/4 | 2.98 |
| 9 | 2 1/4 | 3.49 |
| 10 | 3 1/4 | 3.79 |

Lakeside Butcher Steels

86 E 2036—Forged from best quality high carbon steel. Cut by a special process. They are hard tempered and will take hold properly, putting a keen and even edge on any knife. Have etched handles. Lengths given do not include the handle.

| Length Inches | Ship. Wt. Lbs. | Each |
|---------------|----------------|--------|
| 10 | 1 3/4 | \$1.89 |
| 12 | 2 1/4 | 1.05 |
| 14 | 2 3/4 | 1.39 |

86 E 2041

Butcher Saw. Flat polished steel back, beechwood handle. 3 1/2-inch steel blade (hand filed ready for use). Depth of frame, 5 1/2 inches.

86 E 2043—Tempered and filed. Filled and set ready for use. 1 1/2-inch wide, with 11 1/2 inches. They can be refilled considering the low price. Give size.

| Length | Ship. Wt. | Doz. |
|-----------|--------------|-------|
| 18 inches | 1 pound | \$1.9 |
| 20 inches | 1 1/4 pounds | 2.2 |
| 22 inches | 1 3/4 pounds | 2.4 |
| 24 inches | 2 1/4 pounds | 2.7 |
| 26 inches | 3 1/4 pounds | 2.8 |

An extra high quality kitchen cleaver. Needed in every kitchen. Has heavy steel blade, 6 inches long. Keeps its sharp edge a long time. Has a rosewood handle that fits THE HAND. Shipping weight, about 1 1/4 pounds.
86 E 2055—**\$1.19**
 Price.....

Ladders and Lanterns

\$2.48

\$2.75

\$2.69

Combination Step-Ladder and Chair

One of the most useful home conveniences. When folded it will do full duty as an extra chair in the kitchen and in a second or two can be converted into a non-tipping ladder, 35 in. high. Solidly built of hardwood, varnished in light color. Height of seat from floor, 17 1/4 inches. Size of seat, 16x1 1/4 inches. Shipping weight, 15 pounds.

186E2249—Price.....\$2.75

Step-Ladder Stool

A convenient and practical device for the home—one that is used many times a day. You can sit while preparing your meals, washing dishes, etc. It will also be found handy for reaching high shelves, hanging curtains. Folds flat when not in use. Made of good grade wood, varnished. Has two steps. Height, when open, about 24 1/2 inches. Shipping weight, about 5 pounds.

486 E 2246—Price.....\$1.59

High-Grade Single Section Long Ladder

Extra Reinforced Step-Ladder Complete with Shelf

For family or painters' use. Made of the best seasoned pine of the proper thickness to be safe and durable, yet convenient to handle. Uprights are mortised at steps. Each step is securely nailed and strongly reinforced by a steel rod passing under it. Ends of steel rods are fitted with washers. Top step is fastened by steel bracket. Bottom step has two steel brackets underneath. Folding steel lock spreader and pull shelf.

Not Mailable

| Article Number | Height Feet | Shp. wt., lbs. | Price |
|----------------|-------------|----------------|--------|
| 186E2201 | 5 | 13 | \$2.48 |
| 186E2202 | 6 | 18 | \$2.98 |
| 186E2203 | 8 | 24 | \$3.98 |
| 186E2204 | 10 | 30 | \$4.98 |

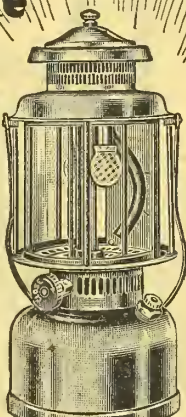
Windlass Rope Extension Ladders

These extension ladders are equipped with rope, pulley, crank and automatic hooks. Have heavy steel top crossbar with friction roller. Sides are of selected straight grain pine, and rungs of kiln-dried hickory. Very strongly built and will give satisfaction. Not Mailable.

| Art. No. | Size | Sections | Shp. Wt. | Price |
|----------|---------|-----------|-----------|---------|
| 186E2214 | 24 feet | 2-12 feet | 50 pounds | \$9.98 |
| 186E2215 | 32 feet | 2-16 feet | 64 pounds | \$12.95 |
| 186E2216 | 36 feet | 2-18 feet | 86 pounds | \$14.95 |
| 186E2217 | 40 feet | 2-20 feet | 96 pounds | \$16.45 |

Gasoline Lantern

Gives More Light than 20 Kerosene Lanterns



Match-Lighting Gasoline Lantern

Double Mantle Style

Takes only 10 to 15 seconds to light. It is efficient, safe, powerful and economical and will burn anywhere, in any position and in any kind of weather. It is blizzard-proof and bug-proof. No wicks to trim, no globes to clean; no smoke, no soot, no flicker, no danger. It can't spill. Safe. Easy to light and extinguish. Simple in construction and operation. Burns 12 hours on one filling—1 quart of gasoline. About 300 candle-power. Extremely steady light. Equipped with extra generator, extra tip, tip cleaner, wrench, pump and one set of mantles.

Complete instructions for use with each lantern. 486 E 2288—Match-Lighting Gasoline Lantern. Height, 14 inches. Shipping weight, about 5 pounds.

Price.....\$6.48

86 E 2289—Extra Mantles to fit 486E2288 lantern. Six for.....45c

Regular Extension Ladders

Our combination ladders are most practical for general use, on account of having a short or long ladder, as needed to suit the location and work to be done. Can be assembled in a narrow space. The uprights are made from selected straight grain pine. The rungs are kiln-dried hickory. Has malleable iron unbreakable hooks. Each ladder has two sections.

| Article No. | Length Feet | Sections Feet | Shp. wt., lbs. | Price Each |
|-------------|-------------|---------------|----------------|------------|
| 186E2206 | 28 | 16-12 | 57 | \$8.95 |
| 186E2207 | 32 | 18-14 | 62 | \$10.95 |
| 186E2208 | 34 | 18-16 | 75 | \$11.95 |
| 186E2209 | 38 | 20-18 | 91 | \$12.95 |

Farm Baskets

Racine Elm Farm Baskets

Galvanized Iron

186E2343—With side handles. Size, 1 bushel. Shipping weight, 5 pounds.

Price, each.....\$1.15

186E2342—With bail instead of side handles. Size, 1 1/2 bushel. Shipping weight, 3 1/2 pounds.

Price, each.....79c

Patent stave elm baskets. Made with two hoops and secure handles. The 1/2-bushel size has a bail instead of side handles. Shipping weight, 2 and 3/4 pounds, according to capacity.

| Article No. | Size Bu. | Price |
|-------------|----------|--------------|
| 186E2351 | 1 1/2 | 3 for \$1.25 |
| 186E2352 | 1 | 3 for \$1.45 |

Resharpener Your Dull Knives

A few strokes over this unusual sharpener renews the keen cutting edge of your old knives. Very convenient—can be fastened to the work wherever desired. Length, of stone 6 1/2 inches. Shipping weight, 3/4 pound.

86E2095—Price.....29c

\$1.39

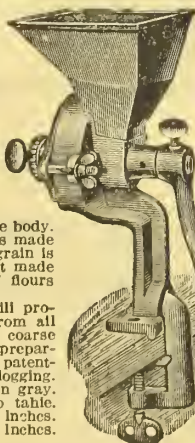
Tin Fount Short Globe Oil Lanterns

We recommend this high grade tin fount short globe lantern, as the fount will give long service, and the cold blast principle insures a brilliant light with no waste of oil. The combustion is nearly perfect and the lamp is practically indestructible. The globes are easily cleaned. Extra quality tin plate is used above fount. No. 2 burner, 1-inch wick. Shipping weight, 8 pounds. Height, 14 1/4 inches.

86E2256—Tin plate fount. Price.....\$1.39

86E2259—Extra Globes. Shipping weight, 1 pound. Each...15c

Hand Grist Mill



Home-ground flour is more economical, more healthful and more appetizing than ordinary flour. Entire food properties are retained and at less cost than patented flour.

The outer and coarser parts of the grain kernels contain minerals and other substances which are valuable to the growth and well-keeping of the body. The flavor of breads made from freshly ground grain is vastly better than that made from the "processed" flours of commerce.

Our hand Grist Mill produces perfect flour from all small grains. Grinds coarse or fine. Excellent for preparing chicken feed. The patented features prevent clogging. Cast iron, enameled in gray. Clamps or screws to table. Size of hopper, 5x5 inches. Diameter of burr, 3 1/4 inches.

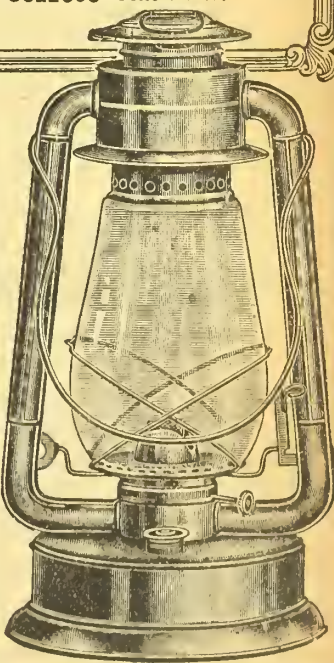
486 E 1966—Shipping weight 15 pounds.....\$1.98

Cold Blast Oil Lantern

Built especially for the farm. It burns steadily in the strongest wind and the cold blast principle produces perfect combustion and a strong white light. Built of heavily retinned steel and will last indefinitely. Has a large fount which holds 2 1/2 pints. Burns 40 hours on one filling. Number 2 Burner, 1-inch wick. Shipping weight, 9 pounds.

86E2254—\$1.19

86E2255—Extra Globes. Shipping weight, 1 pound. Price, each.....15c





\$36.95

**Save Your Rugs
use the Thuro**

DIRT is the most destructive enemy of rugs. This explains one of the reasons why our customers place such a high valuation on their Thuro Electric Vacuum Cleaners. They realize that, without the beneficial effects of the Thuro, their rugs would not last nearly so long.

It revives their colors and leaves them fresh and clean, making the floor a safe playground for the children.

Test it beside any vacuum sweeper on the market regardless of price.

If you are not convinced the Thuro is the one best suited to your needs, send it back.

You have nothing to lose and a number of dollars and much satisfaction to gain.

Body is of one-piece cast aluminum. Swivel rear wheel makes it easy to swing in any direction over the carpet.

Why the Thuro Cleans So Well

THERE is a Straight Passage of air from the wide mouth of the nozzle to the center of the cast aluminum fan. That is why the Thuro cleans so well. It has 20 percent more suction than the average machine.

How It Protects Nap of Your Rugs

An inter-gear arrangement on the floor wheels causes the brush to revolve with just enough force to dislodge the imbedded germ-laden dirt and lint. The suction does the rest. Will add years to the life of your rugs.

Compare These Cleaners with Others

The air-cooled motor has self-feeding oil wells. 1/4 horse power Phosphor bronze bearings. Cooling fan absolutely prevents overheating.

486 E 572—Runs equally well on either direct or alternating current motor. 130 volts, 60 cycles or less. Price **\$36.95**

486 E 573—Equipped with motor of 32 volts for homes where Farm Lighting Plants, such as the Powerlite or Delco are in use. Ship. wt., about 15 lbs. Price... **\$38.50**

Thuro Vacuum Cleaner Attachments

These attachments are specially designed for the cleaning of Bedding, Upholstery, Draperies, Clothing, Furs and in fact, everything about the household above the floor, also for cleaning the interior of automobiles. Set contains one 8-ft. Rubber Hose; one 30-in. Black Fiber Extension Tube; one 7-in. Aluminum Nozzle; one Hollow Library Brush and one Blower Nozzle. Ship. wt., about 5 lbs.

486 E 574—Price, complete set... **\$9.00**

High Grade Floor and Furniture Wax

A high-grade wax for polishing furniture, pianos, floors, linoleum, woodwork or automobiles. Apply with a soft cloth; within a few minutes rub to a polish. On the floor or linoleum a weighted floor brush may be used. One pound is sufficient for about 250 square feet, one coat. Dries hard. Does not scratch or mar.

86 E 535—1-pound can... **42c**

86 E 536—4-pound can... **\$1.48**

42c 1 Pound Can

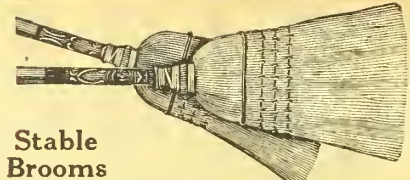
Dancing Floor Wax

The finest preparation for dancing floors. Comes in powdered form. Easy to apply. Simply sprinkle lightly over the floor—the feet of the dancers do the rest. Will not soil the most delicate fabric. Gives a finish to the floor more serviceable than that obtained from the average wax. Put up in 1-pound and 5-lb. cans.

86 E 534—Price, 1-pound can **25c**

1-Pound Can 25c

Cleanliness Made



Stable Brooms

For barn, sidewalk, factory and heavy sweeping. Tough, selected broom corn is used for outside with rattan center. Three-sewed with heavy twine. Steel banded. Heavy maple handles. Shipping weight, of two, 6 pounds.

486 E 334—Two brooms... **\$1.39**



A Wonderful New House Broom That Will Outlast 3 Ordinary Brooms

Made of long-lasting India Palmyra Fiber. Steel bound. Strongly sewed. Unusually sturdy. Will not mar floor. Lasts three times as long as ordinary brooms. Shipping weight, 2 1/2 pounds.

486 E 322—Price, each... **\$.69**

Three for... **1.89**

Ladies' Favorite House Brooms

Our very best grade house broom. Stained handle. Four-sewed with strong, pure fiber. Only the very finest corn used. The best light broom made. Shipping weight, of three, 6 pounds.

486 E 325—Three Brooms... **\$2.15**

Fancy Carpet Brooms

Well made of selected broom corn. Four-sewed with durable twine. Maple handles, fancy enameled finish. A durable handsome broom. Shipping weight, of three, 7 pounds.

486 E 321—Three Brooms... **\$1.98**

Number 1 House Brooms

The Standard House Broom. Well made of good broom corn. Four-sewed with durable twine. Number 1 maple handles. Patent lock finish. A good, strong broom. Shipping weight, of three, 6 pounds.

486 E 320—Three Brooms... **\$1.48**

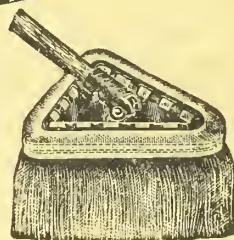
Number 2 House Brooms

Will give splendid service. Well made from good quality broom corn. Patent lock finish. Four-sewed with strong twine. Smooth handles. Shipping weight, of three, 6 pounds.

486 E 329—Three Brooms... **\$1.29**

Polishing Mop

79c



A handy padded mop that reaches into remote corners. It renews the lustre of the floor and does not scratch or mar. Can be washed and renewed with polish. Fitted with adjustable handle to work in all directions. Full instructions furnished. Shipping weight, 3 pounds.

486 E 360—Price... **79c**

SELF FEEDING



Self-Feeding Polish Mop

For polishing floors, furniture, etc. Fitted with a metal reservoir for holding polishing oil which is absorbed in just the right quantity as needed, just as a lamp wick draws oil from a lamp. Never too oily, never leaks. Mop can be washed with warm water and soap. Has 4-foot polished handle. Shipping weight, 2 1/2 pounds.

486 E 368—Price... **98c**

Dustless Mop

75c



Picks up the dust instead of spreading it. Gives a fresh appearance to painted and varnished surfaces, linoleum, etc. Can be washed with soap and water. The 54-inch handle is adjustable, which keeps the mop flat on the floor at all times. Made of absorbent long-fiber cotton. Not treated with oil. Shipping weight, 2 pounds.

486 E 366—Price... **75c**

Chamois Prepared by the French Process

An excellent chamois for cleaning mirrors or any glassware. Very good for polishing highly-finished furniture and automobile bodies. It is tanned and dressed by the French process which makes possible its being washed and cleaned without affecting the original softness. A very good quality of tanned chamois. Shipping weight, about 4 to 8 ounces.

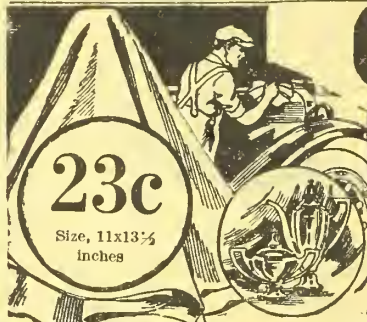
86 E 560—Size about 11x13 1/4 inches. Each... **\$.20**

86 E 561—Size about 13x16 inches. Each... **.26**

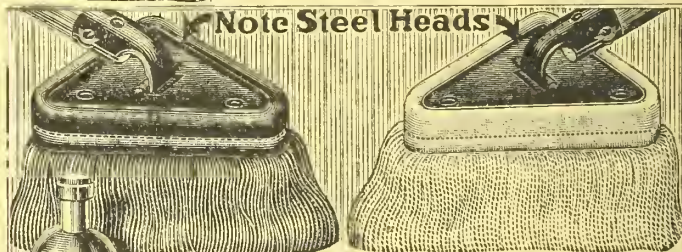
86 E 562—Size about 15x20 inches. Each... **.36**

86 E 563—Size about 18x24 inches. Each... **.48**

86 E 564—Size about 23x26 inches. Each... **1.20**



Note Steel Heads



Steel Head Mop Set

\$1.48

Two Mops and Polish

Keep your floors bright and new with little work. The polish mop used once a week and the dry dustless mop used daily will do it. When dirty the mops can easily be washed out. The adjustable handle always keeps the mop flat on the floor even when cleaning under furniture. Doesn't scratch or mar. Set contains 1 oil mop, dust mop, two long handles and 8 ounces of oil polish.

486 E 363 Shipping weight, about 6 pounds **\$1.48**

Floor Waxing and Polishing Brush



\$3.25

Used for waxing and polishing floors and linoleums. Iron parts in aluminum finish. Corners and sides protected to prevent marring woodwork. Brush set in solid block. Length of bristles, 3/4-inch. Fitted with a 4 1/2-foot handle.

486 E 532—Shipping weight, 15 pounds. Family size, 1 1/2 x 3 1/2 x 3 1/2 inches. Each... **\$3.25**

486 E 533—Shipping weight, 23 pounds. Large size, 9 1/2 x 4 1/2 x 4 1/2 inches. Each... **\$4.48**

Wall Wool Duster

98c



Being used as a Wall Duster

Showing Detail of Brush

Soft and fleecy. Can be washed with soap and water. The sheep's wool on the felt is very durable. Two handles, one 8 inches long, the other 5 feet long. Size of dustier about 7x12 inches. Shipping weight, 13 ounces.

86 E 381—Each... **98c**



MOP AND FURNITURE POLISH

A special preparation of polish for renewing oil on polishing mops. An excellent furniture polish as well.

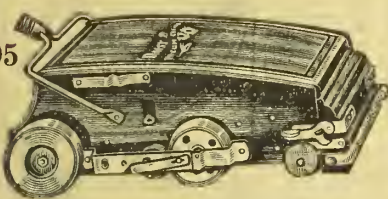
86 E 393—Quart Can, Shipping weight, 1 1/2 pounds. Price... **45c**

Easy at Low Cost

Superior Vacuum Sweeper

Gem All Metal Vacuum Sweeper

8⁹⁵



Genuine Mahogany Veneer Hood

It draws out all the fine dirt as well as all the lint and surface dirt. It is the three bellows type, insuring a strong, even and continuous suction. Width of suction nozzle, 12 inches. Length of rotary brush 9 inches. Brush is made of extra grade bristles and can be thrown out of action by a lever adjustment. Dust bag is easily removed for cleaning.

Equipped with the automatic brush adjustment. This device keeps the brush at the proper height from the floor regardless of the thickness of the rug or carpet being cleaned.

Beautifully finished genuine mahogany veneer hood, only 6 inches high, making it easy to clean underneath beds, dressers, etc. A heavy felt pad and rubber bumpers over the front and sides prevent it from marring furniture.

86 E 448—Shipping weight, 16½ pounds. Price.....\$8.95

This high-grade vacuum sweeper does most efficient work. It is the three bellows type, which insures a strong, even suction. Width of suction nozzle, 12 inches. Length of rotary brush, 9 inches. Brush is always kept at the proper height from the floor, due to the automatic brush adjustment and can be thrown out of action by means of the small lever.

The entire case is made of metal, enameled so as to give it the appearance of mahogany. It is only 6 inches high. It will not mar woodwork as it has a felt pad and rubber bumpers over the front and sides. Dust bag is easily removed for cleaning. Shipping weight, \$6.45 about 18 pounds.

486 E 489—Price.....\$6.45

Bissell's Grand Rapids

\$6.00



One of the best carpet sweepers manufactured. Strongly made of nicely polished choice woods, with nickel-plated trimmings. Fitted with patent ball bearings. Noiseless and smooth-running. Does excellent work. Shipping weight, 8 pounds.

86 E 460—Price.....\$6.00

Black Horsehair Floor Brush with Handle



Well made. Excellent for varnished or oiled floors. Oil finished hard wood block with double sockets so brush may be used on either side. Each brush has a 54-in. handle.

| Article Number | Size of Brush | Ship. wt. | Price Each |
|----------------|---------------|-----------|------------|
| 86E402 | 12 in. | 2½ lbs. | \$1.29 |
| 86E403 | 14 in. | 2½ lbs. | 1.49 |
| 86E404 | 16 in. | 2½ lbs. | 1.79 |

Rattan Push Brooms

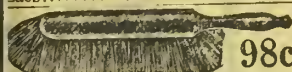


86 E 338—Rattan center, fiber outside. 15-inch block. Double socket. Handle not included (handles listed below). Shipping weight, 3½ pounds.

Price, each.....\$1.18

Handles for Push Brooms Pictured Above
86 E 339—Push Broom. Handles to fit Broom Number 86 E 338. Length, 4½ feet. Shipping weight, 1½ pound.

Each.....12c

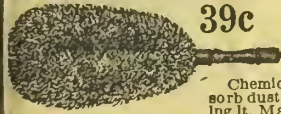


Bristle Dusting Brushes

98c

A handy household brush. Has 10-in. block and polished handle. Five rows of good quality bristles. Very durable. Length over all, 18 in. Ship. wt., 8 oz.

86 E 396—Price.....98c



Sanitary Dustless Dusters

39c

Chemically treated to absorb dust instead of scattering it. Made of good quality fiber cotton on a wire frame. Has wooden handle. Total length, 18 in. A useful article for the home. Ship. wt., about 20 oz.

86 E 376—Price, each.....39c

86 E 1805—Covered back dusters danger of spilling. Ship. wt., 1 lb.

Price.....19c



Dust Pan With Covered Back

19c

Bissell's Cyco-Bearing Universal

\$5.25



A very popular standard model. The standard Cyco bearings operate easily and smoothly. Made of choice cabinet woods, handsomely finished. All metal trimmings are nicely japanned. Has braided-covered bumper for protecting furniture. Ship. wt., 8 pounds.

486 E 461—Price.....\$5.25

Turkey Feather Duster

34c



Nos. 86E383, 384 and 385 contain 100 feathers; 86E386 has 125 feathers. Handle detachable.

| Article No. | Size Feathers | Ship. Wt. | Price |
|-------------|---------------|-----------|-------|
| 86E383 | 9½ inch | 8 oz. | 34c |
| 86E384 | 11 inch | 10 oz. | 43c |
| 86E385 | 14 inch | 15 oz. | 63c |

86 E 386—Extra Fine Paros Duster. 11-in. feathers. Ship. wt., 12 oz.

Each.....79c

Washable Wool Dusters

Can safely be used on finest polished furniture or woodwork. Easily washed when soiled. Very soft, long, imported fleece-dyed wool. Average length of handles, 9 inches.

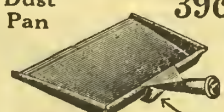
| Article No. | Length of Wool About | Ship. Wt. | Price Each |
|-------------|----------------------|-----------|------------|
| 86E389 | 6 in. | 6 oz. | \$.34 |
| 86E390 | 7 in. | 8 oz. | .34 |
| 86E391 | 8 in. | 9 oz. | .69 |
| 86E392 | 10 in. | 12 oz. | 1.39 |



Handled Dust Pan. No Bending Over

48c

Dust Pan



39c

86 E 1806—Strong and durable. Note reinforced back shown in illustration above. Ship. wt., 1½ lbs.

Each.....39c

86 E 1807—Very convenient. Dust pan raises up automatically—dust can't spread. Sweep into it from a standing position. Shipping weight, 1½ pounds.

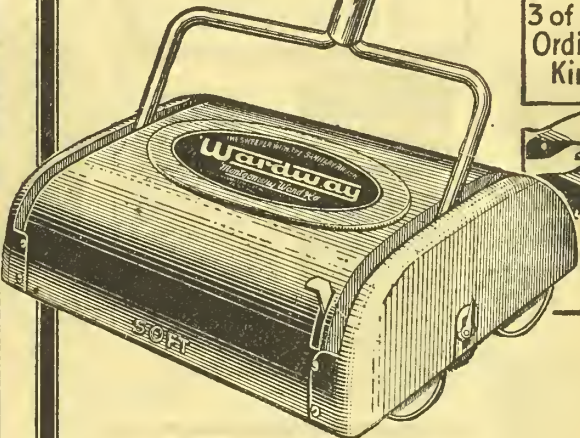
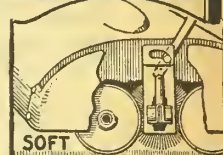
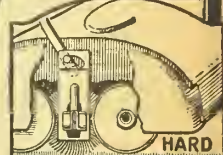
Price.....48c

\$2.48

Why Pay More—

When there is None Better Made than Ward's Carpet Sweeper?

Time Saving Features



Automatic Dirt Removers Control Both Pans

PAY \$6.00, or \$10.00 if you will, for your carpet sweeper and still you will not be able to secure a sweeper that does the work better than our Wardway. Its important features are not to be found in the old style carpet sweeper commonly used in the home today.

We Have Made This Sweeper for You

We want you to try one at once. Run it over your floor, face forward, and note how it lightly brushes the surface dirt into the sweeper. Then reverse the sweeper—Instantly it forces ¼-inch of bristles down into the rug removing the imbedded dirt that is so injurious to the nap. You need never apply any physical pressure—the carpet sweeper itself does this for you. It is the easy and quick way. Entirely new.

The extra high quality Imported Bristle Brush can be dropped to 3 different levels, renewing its effectiveness three times. This feature more than doubles the life of this sweeper and can be found in no other make regardless of price.

Has self-adjusting rubber tired wheels. Tires cannot work loose. Extra long bristles give this sweeper an unusually powerful "fling." Full face of brush is always in direct contact with the rug—not merely tufts, as other sweepers have.

Only 4½ inches high, 9 inches long and 13½ inches wide, over all.

Cold-rolled, reinforced steel case has baked-on enamel surface of olive drab with harmonious green trimmings. The nicely rounded corners protect the furniture. Double side walls make it absolutely dustproof. Nothing on sides to break off or loosen.

Compare the prices—next, compare the advantages this sweeper has over all others—then buy and be sure to tell your friends.

486 E 400—Shipping weight, about 5 pounds. Price.....\$2.48



U-Zit

SHINERWOOL

The Aluminum Cleanser



Soft woolled steel shavings that work wonders. Keeps aluminum ware, etc., spotless and bright. Ideal for cleaning linoleums, hardwood floors, boilers and for removing paint spots from glass. Saves your hands, too. At its best when soaked with soapy water. Complete with a "Dictionary of Uses." Shipping weight, about ½ pound.

86 E 401—Price.....19c



Genuine Johnson's Prepared Wax
The perfect wax polish for floors, linoleum, woodwork, furniture, leather goods, gun stocks, automobiles, etc. Cleans polishes and finishes in one operation. Gives a beautiful dry glasslike finish—never becomes sticky. Ship. weight, 5 ounces.

86 E 2670—Price, per can.....40c

The Genuine Johnson's Cleaner

86 E 2671—Price, per can.....40c

Wardway Liquid Floor and Furniture Wax

1 Gallon will Cover 1500 Square Feet

Brings out the grain of the wood and gives floors and interior woodwork a brilliant finish. Very durable. No mixing required. Directions on can. Waterproof.

86 E 537—1-quart can. Shipping weight, 3 pounds.

Price.....54c

86 E 538—½-gallon can. Shipping weight, 6½ pounds.

Price.....95c

86 E 539—1-gallon can. Shipping weight, 10½ pounds.

Price.....\$1.48

Our Best Furniture Polish

Removes dirt, grease, etc.

Your furniture will look beautiful and bright after polishing with this efficient Furniture Polish. It takes off dirt, dust, grease, grime, unsightly stains and blemishes.

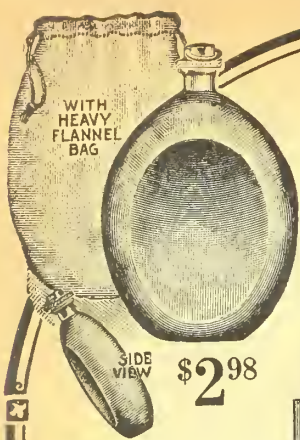
86 E 2658—Pint Can. Shipping weight, 2 pounds.

Price.....39c

86 E 2659—Quart Can. Shipping weight, 4 pounds.

Price.....65c





Aluminum Hot Water Bottle

For home, sickroom or nursery. Made seamless of pure aluminum. Has screw cap and heavy canton flannel bag. Aluminum is especially desirable as it heats quickly and retains the heat. Will not corrode, puncture or wear out. Capacity, 1½ quarts. Ship. wt., 1½ pounds.

86E1338—\$2.98

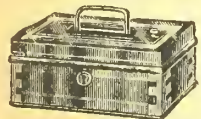


Wash Basin and Holder

Black japanned iron basin bolder, soap rack and 1½ in. white enameled wash basin. Holder has bracket for attaching to wall. Shipping weight, about 2½ pounds.

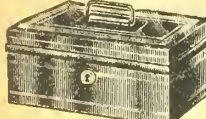
86E1343—79c

Cash and Deed Boxes



86E1808—\$2.79
Extra heavy. Reinforced corners. Complete with lock and key. Ship. wts., 2½ and 3½ lbs.

| Size, in. abt. | Price |
|----------------|--------|
| 10½x7½x4½ | \$2.79 |
| 12½x8½x5½ | \$3.19 |



\$1.29 86E1809—
Made of tin. Japanned. Complete with lock and key.

| Size, in. abt. | Lbs. | Price |
|----------------|------|--------|
| 10½x7½x3½ | 2½ | \$1.29 |
| 12½x8½x5½ | 3 | \$1.48 |

See Our White Enameled Bath Room Fixtures on page 829

Covered Slop Jar



15 pounds. Price.....\$3.15



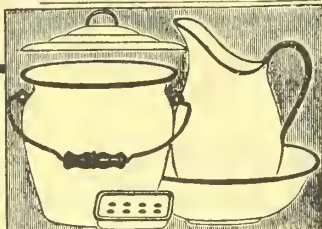
Embossed in panel design. Ht., 12½ inches. Capacity, 8½ quarts. Shipping weight, 20 pounds.

Gray Stoneware Combinet 450E1339 Price, each \$2.10

Toilet Stand with Mirror

186E1336—Equipped with 3-quart pitcher and 12½-inch basin, also tray, soap dish and towel rack. Adjustable beveled mirror, 10x12 inches. Extreme height, 36 inches. Exceptionally strong and rigid. Shipping weight, 22 pounds.

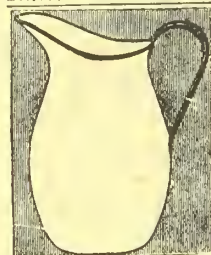
\$9.98



White Enameled Toilet Set

Lighter and more durable than earthenware. Pure white enameled inside and outside. Set consists of wash basin, 13 in.; water pitcher, 6 qts.; chamber pail and cover and soap dish with drainer. Each piece made seamless. Ship. wt., 13 lbs.

438E1309.....\$5.69



\$1.39

White Enameled Water Pitchers 86E802

| Cap. | Ship. Wt. | Price |
|---------|-----------|--------|
| 2 qts. | 1½ lbs. | \$1.39 |
| 3½ qts. | 2 lbs. | 1.65 |
| 7 qts. | 4 lbs. | 2.48 |

Odorless Commode

Galvanized iron. Outside has thin coat of aluminum paint. Removable wooden seat. Cover fits in a groove which forms an airtight seal when filled with water. A deodorizing cup is attached to cover. Use chloride of lime in the cup as a disinfectant. Ht., 12½ in. Diameter, 11½ in. Ship. wt., 8 lbs.

486E1307—\$2.75

Sanitary Ware



White Enameled Combinet

White inside and out. Smooth edges. Cover fits down tightly, easily cleaned.

| Article Number | Holds Abt. Qts. | Ship. Wt. Lbs. | Price |
|----------------|-----------------|----------------|--------|
| 486E1312 | 8½ | 5 | \$1.98 |
| 486E1313 | 12 | 8 | 2.48 |

Gray Enameled Cuspidors 86E1340 98c



Seamless. Removable sanitary cover. Size, 10½x4½ in. Ship. wt., 3 lbs.



Odorless Commode

Gray enameled water seal commode with a "V" shape top rim, into which the flange of cover fits. Water placed in this groove makes it perfectly airtight. Will fit chair opening, 8½ to 9½ inches in diameter. Outside height, 7½ inches. Ship. wt., 7½ lbs.

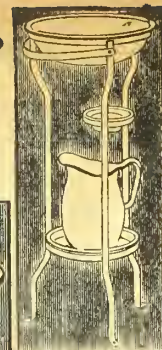
86E1308—\$1.75



Gray Enameled Combinet

Seamless. Covered with durable gray enamel. Has smooth, rolled edge, can be used as pail or chamber. Enameled snugly fitting cover and wood grip ball. Easy to keep clean—sanitary. Capacity, abt. 12 qts. Ship. wt., abt. 6 lbs.

486E1314—\$1.98



Toilet Stand

186E1325 Sanitary toilet stand and set. Frame, basin, pitcher, and soap dish, are all white enameled. Pitcher and basin have dark blue rims and handles. Height of set, 30½ in. Diameter of basin, 13 in. 3-qt. pitcher. Shipping weight, 14 pounds.

Per set, only.....\$3.98



Aluminum Hot Water Bottle

Made of hard sheet aluminum. Will stay warm for a period of 12 hours, doing away with the necessity of refilling during the night. Almost indestructible. Complete with canton flannel draw-string bag. Ship. wt., 1½ lbs.

86E1346.....\$1.98



Child's White Enameled Bath Tub

86E1335—Seamless. Has wide rounded rim with black edge. Inside dimensions: Length, 19½ in.; width, 15½ in.; depth, 6 in. Ship. wt., 14 lbs.

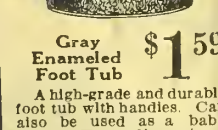
86E1347—Gray enamel baby bath tub, same size as above.....\$1.79



White Enameled Wash Basins

86E804

| Diam. In. | Ship. Wt. Lbs. | Price Each |
|-----------|----------------|------------|
| 12 | 2 | 65c |
| 13 | 3 | 75c |
| 14½ | 4 | 89c |



Gray Enameled Foot Tub

A high-grade and durable foot tub with handles. Can also be used as a baby bath. Top dimensions, 18½x14½ inches diameter. Depth, 8 inches. Ship. wt., about 5 lbs.

86E1344—\$1.59



Gray Enameled Chamber

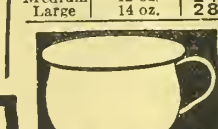
86E1331

| Size | Ship. Wt. | Each |
|--------|-----------|------|
| Medium | 1½ lbs. | 48c |
| Large | 2 lbs. | 59c |

Covers for the Above Gray Enameled Chambers

86E1332

| Size | Ship. Wt. | Each |
|--------|-----------|------|
| Medium | 12 oz. | 24c |
| Large | 14 oz. | 28c |



White Enameled Chamber

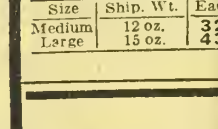
86E1327

| Size | Ship. Wt. | Each |
|--------|-----------|------|
| Medium | 1½ lbs. | 79c |
| Large | 1½ lbs. | 98c |

Covers for the Above White Enameled Chambers

86E1328

| Size | Ship. Wt. | Each |
|--------|-----------|------|
| Medium | 12 oz. | 32c |
| Large | 15 oz. | 43c |



Covered Chamber

Neatly embossed white porcelain. Capacity, 4 qts. Ship. wt., 12 lbs.

50E1362.....\$3.15

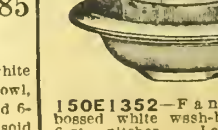


Wash Bowl and Pitcher

150E1352—Fancy edge 7-quart white semi-porcelain wash bowl, 6½-quart pitcher, being sold at a very attractive price. Shipping weight, 35 lbs.

150E1340—\$6.85

Per set.....\$6.85



Folding Bath Tub

A roomy bathtub that can be folded into a small roll. Does away entirely with the need of clumsy washbowls, foot tubs and galvanized or wooden tubs. At a very small cost it gives the convenience of a big modern bath tub to farm homes, summer cottages and homes where there are no bath fixtures.

Cannot Tip or Sway Has a strong hardwood frame with body of rubber-covered thick ducking. Inside is smooth, soft and silky. Bottom rests on floor where it cannot tip or sway. It won't spill, leak nor splash. Hot water doesn't hurt it. Filled from a faucet by means of a hose connection, or you can fill it up just as you would an old-fashioned tub. Length, 5 ft.; width, 27 in.; depth, 16 in. Weighs but 15 lbs.

186E1341—Ship. wt., 16 lbs. \$9.48



FOLDING BATH TUB

Not Mailable

\$9.48



Semi-Porcelain Toilet Ware

Six-Piece Set \$6.25

\$8.50

American Semi-Porcelain Toilet Set

Made of American Semi-Porcelain. Cream white, decorated with large prints of pink flowers and buds. Consists of the following pieces: Roll edge wash bowl; hot water pitcher; one 7-quart pitcher or ewer; tooth brush vase; covered chamber (two pieces); fancy mug; covered soap dish (three pieces).

150E1331 \$6.25 150E1303—Shipping weight, 45 lbs. Set.....\$8.50



Three-Piece Set \$6.85

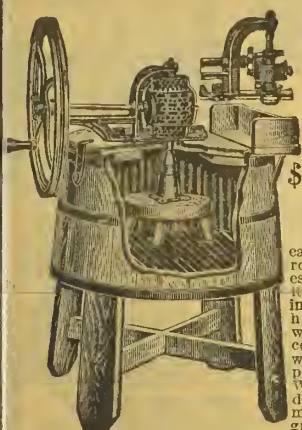
10 Pieces

Fancy edge 7-quart white semi-porcelain wash bowl, 6½-quart pitcher, being sold at a very attractive price. Shipping weight, 35 lbs.

150E1340—\$6.85

Per set.....\$6.85

Washing Machines



**Simplex
Rotary
Washer**

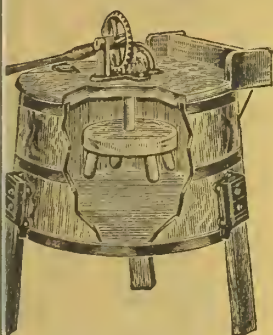
\$12.95

One of the easiest running rotary machines because of its roller-bearing gear and heavy fly-wheel. The covered cog-wheels make it perfectly safe. Washes by the dolly or dasher method. Has grooved pulley wheel.

Fitted with telescope dasher post so that, with a full tub, the dasher post does not project through the dolly (tear or injure the clothes). Large capacity, naturalish, water-proof Cypress tub, with strongly braced legs and wringer board.

Capacity, 8 shirts. Shipping weight, 85 pounds.

86 E 143—Price.....\$12.95
Shipped promptly from Chicago, or from Warehouse in Harrisburg, Pa., whichever is nearest you.



\$8.98

**Ward's
Im-
proved
Reliable
Washer**

If you want a good washer at a very low price, get this one. Cleans by the dolly or dasher method. It swirls the garments through the hot, sticky and thoroughly.

Well made throughout. Tub is of water-resisting cypress. Illustration shows the inside construction.

Inside diameter, 23 inches at bottom, 20 3/4 inches at top. Height, 12 1/2 inches. Shipping weight, 60 pounds.

86 E 164—Price.....\$8.98
Shipped promptly from Chicago, or from Warehouse in Harrisburg, Pa., whichever is nearest you.

**Famous Whirl
Washer**

\$5.98



You will be surprised to see how well this washer cleans just by working the handle back and forth.

This popular low priced washer operates on a principle similar to the Old Faithful but, of course, it is not as well made. Both the lower washboard and upper rubber

board are well constructed of water-resisting wood. When emptying the tub all you do is to lift the upper board out and set it on a bracket. No necessary board may be taken out for cleaning.

Width, 17 1/4 inches; length, 28 inches; depth, 13 inches. Shipping weight, 50 lbs.

86 E 160—Price.....\$5.98
Shipped from Chicago or from Warehouse in Harrisburg, Pa., whichever is nearest you.



Golden Oak Finish
Has Five Walls
186 E 589 — Ice Capacity,
45 lbs.
Outside dimensions: Width,
22 1/2 in.; depth, 16 in.; height,
41 in.

Provision chamber,
inside dimensions: 17 1/2
x 11 1/2 x 14 1/4 in.
Ice Chamber, inside
dimensions: 15 1/4 x 10 1/4
x 10 1/4 in.

Shipping weight, 118
pounds.
Price.....**\$22.95**

Shipped from Chicago.



The Old Faithful

"You can always rely on the Old Faithful." This is the advice given by many of our older customers to their daughters—and it's good advice!

Because of its reliability, the Old Faithful has been a favorite in the homes of American housewives for 25 years. It is probably the most popular type of washing machine in use today. This is because it is practically a washboard operated by machinery but, instead of having the hard work done by human hands, the operation of the lever starts the mechanism to work, washing the clothes spotlessly clean. Will not tear the delicatest fabrics.

It has a high-speed flywheel attachment and is operated by a lever instead of a hand wheel. When once started—and it starts very easily—the momentum and force is so great as to make it practically self-running which means time saved and ease of operation. It runs on long double bearings, which make it easy-running. It has protected gears, making it safe, and galvanized castings and hardware which prevent rust. Fitted with rollers for moving about easily. Has grooved flywheel so it may be operated by motor power also, if desired.

**Made of Louisiana
Red Cypress**

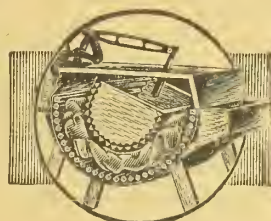
The wood that has endured for centuries. Water doesn't affect it. It neither warps, leaks nor rots. The varnish shows its beautiful grain.

If you want a dependable, easy-running, long-lasting washing machine, choose the Old Faithful. You will like it.

Height, 30 1/4 in. Length, 35 in. Width, 20 1/4 in. Cap., 12 shirts. Ship. wt., 120 lbs.

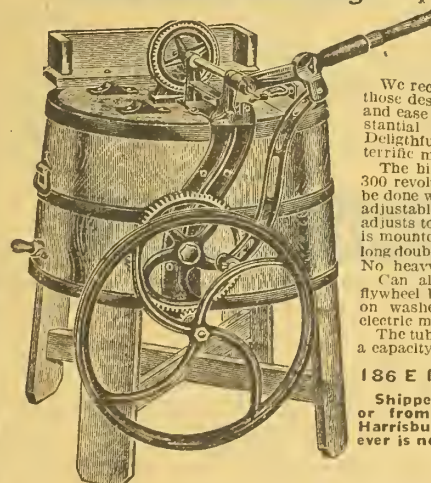
186 E 148—Price.....\$17.95
Price does not include Wringer.

Shipped promptly from Chicago or from Warehouse in Harrisburg, Pa., whichever is nearest you.



At every movement of the lever the two washboards turn or revolve in opposite directions. This causes a combination of squeezing, suction, vacuum, tumbling and agitation.

Our Veribest High Speed Washer



We recommend this high-speed washer to those desiring a dolly type machine. Its speed and ease of operation, combined with substantial quality, insure genuine satisfaction. Delightfully easy to operate because of the terrific momentum it produces.

The high-speed flywheel is geared to make 300 revolutions per minute. The washing can be done while you are sitting or standing. The adjustable handle makes this possible. It adjusts to six different positions. The flywheel is mounted on a long steel shaft which runs on long double bearings, making it smooth running. No heavy machinery is attached to the lid.

Can also be operated by belt power, the flywheel being grooved for a round belt. Lid on washer can be opened or closed while electric motor is running.

The tub is of water-resisting Cypress and has a capacity of 8 shirts. Shipping weight, 90 lbs.

186 E 162—Price.....\$15.95

Shipped from Chicago, or from Warehouse in Harrisburg, Pa., whichever is nearest you.

**The Dolly
Type**

Our Price \$15.95

Refrigerators

Seamless Three-Coat White Enamel Lined

There is no refrigerator made which, for excellence of workmanship, beauty of design and low price combined, can compare with our three-coat white enamel lined refrigerators.

They are scientifically insulated, having five to ten separate and distinct walls. 3 in. deep. This explains their economy in the consumption of ice. The air circulating in the provision chamber is perfectly dry, thus preventing food from becoming mouldy.

The combination drain pipe and trap is easily removed for cleaning. Made of solid, copper, nickel-plated—will not rust. The wire mesh shelves are heavily retined.

The Baseboard lifts up and is as handsomely finished as the rest of the woodwork.

Ice Rack is made of heavily galvanized iron. Removable for cleaning. Locks and hinges are all heavily nickel-plated.



\$16.95

**Water
Queen
Engine
Drive
Washer**

To be operated direct from gasoline engine or countershaft. Fitted with tight and loose pulleys, 8x2 inch. Can be operated by hand in case of emergency.

Equipped with belt shift to throw the power on tight or loose pulley. When on loose pulley all mechanical parts stop with the exception of the loose pulley and you can open and close the cover of machine without stopping your engine. Tub is made of Southern Cypress, the wood which resists water so well. Guaranteed for five years against breakage or defective castings (except through misuse). Your money and freight charges will be cheerfully returned if it does not please you.

Inside measurements of tub, 23 1/4 in. at bottom, 19 1/4 in. at top, 12 1/4 in. deep.

186 E 183—Water Queen Power Washer, equipped with 8-in. pulley to run 240 revolutions per minute. Ship. wt., 100 lbs. Price.....\$16.95

Shipped promptly from Chicago.



**The Dolly
Type**

\$16.95

**The Cyclone
Blue Ribbon
Vacuum**

For a snow white line on washday, use the Blue Ribbon Vacuum Washer.

A group of three cups plunges up and down and at the same time rotates in such a way as to bring all the clothes in the tub within range of its powerful suction, which removes every particle of dirt without harming the most delicate garments. Dirt cannot resist this thorough and entirely efficient vacuum action.



This machine is light running. This is because of its perfect balance. The mechanism on the lid is cleverly balanced so that it opens with great ease. When opened, you have complete access to the entire tub. (See illustration.) The three vacuum cups or plungers are smooth and non-rustible iron—nothing to tear or injure the clothes. Everything is simple, strong and compact.

Tub is made of water-resisting Southern Cypress, capacity about 8 shirts or 4 sheets. Diameter of tub, inside, 21 in. Ht. to lid, 29 in.
286 E 136—Ship. wt., 90 lbs. Price....\$16.95
Shipped from Factory in Northern Illinois.

A Happy Thought!

Why wait until Christmas to give the children gifts. Make their surprise the greater by giving them toys when they least expect them. See our toys on pages 147 to 173.

**Ash Front and
Top Has 10 Walls
186 E 592 —**
Ice Cap., 60 lbs.
Outside dimensions: Width, 23
in.; depth, 17 in.;
height, 41 in.

Large provision
chamber. Inside
dimensions: 11 1/2 x
12 1/2 x 29 1/4 in.

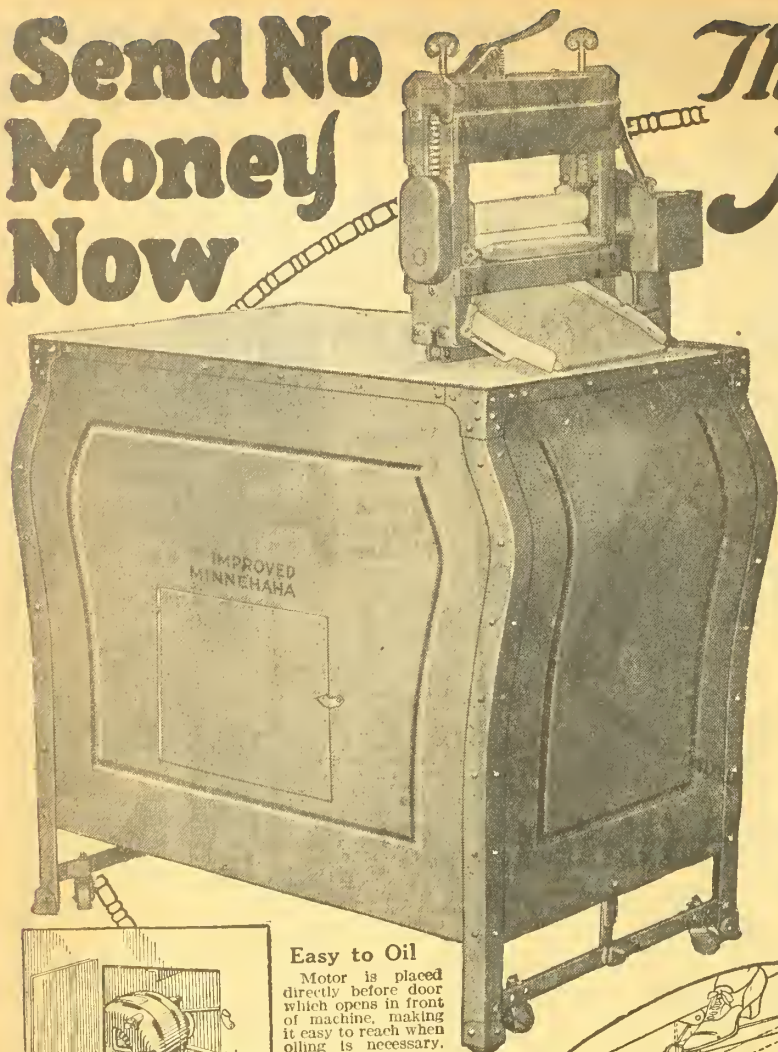
Ice Chamber,
inside dimensions:
11 1/2 x 12 1/2 x 17 1/4 in.
Ship. wt., 145
lbs.
Price.....**\$25.95**
Shipped from
Chicago.



Send No Money Now

The Improved Minnehaha

Washes and Wrings by Electricity



Domestic Science is better understood today than ever. The great popularity of the Minnehaha Power Washer proves this important fact. Women realize that the oscillating type of power washing machine cannot harm the clothes—they have found that the Minnehaha actually prolongs their life.

New Important Changes

In 1915 the Minnehaha was first offered to our customers. Every year since then has increased its popularity. At times improvements were made that added to its efficiency. But today such a big step forward has been taken that we urge you to send for this machine at once. Enjoy its conveniences! Free yourself of washday drudgery! And do all this for 30 days without paying us one cent!

Try Before You Buy. Simply fill out the Easy Payment section of the order blank below. We will then ship the Improved Minnehaha complete with power wringer and electric cord. If, after 30 days you decide to keep it, \$10.00 down and \$10.00 a month will soon pay the small amount we now ask for the Improved Minnehaha.

All Metal Cabinet. Unlike the old style, the new Improved Minnehaha has an all metal body which fully encloses all the mechanism. It has transformed the type of washer now regarded as the height of washing machine perfection into a thing of beauty.

Suspension Swinging Tub. The tub rests on a cradle on which it is swung back and forth fifty-eight times a minute. Think what this means!—Fifty-eight times a minute a perfect figure eight of water and suds sweep through the garments! And at the same time the clothes are tossed about causing such a tremendous agitation that the dirt soon loosens its most stubborn grip.

Easy to Oil

Motor is placed directly before door which opens in front of machine, making it easy to reach when oiling is necessary.

Power Wringer

Has large reversible 12-inch rollers. Equipped with quick-release safety control lever. Adjustable to any position, and can be operated while batch of clothes is being washed. This enables you to wring from tub to rinse water, from rinse water to blue water, and from blue water to basket without moving machine or loss of time.

Adjustable Legs

A touch of the toe on this device instantly changes it from the easy rolling casters to rigid iron feet.

More Savings for You!

We now offer the Improved Minnehaha with COPPER TUB at the price usually asked for galvanized tub! Both the lid and the body of the tub are ribbed to insure strength. Interior is heavily retinned, making tub rustless and non-corrosive. No cracks or crevices to collect dirt. Practically cleans itself.

Sold on the Easy Payment Plan

A Study in Effective Washing



The Familiar Figure Eight

It is the famous figure-eight motion so universally recommended. Notice the small illustration to the left which shows the swinging motion of the Improved Minnehaha.

Solid Copper (12 Shirt) Tub

Capacity of tub is 6 to 7 sheets or 12 shirts. Can easily be removed should any occasion require. Motor has sufficient strength to operate both wringer and power washer at the same time. 1/2 horsepower—water-proof. Made by a manufacturer of national reputation.

Size—Cabinet measures 38 inches in length, 23 inches in width, and 35 inches in height. Height to top of wringer, 53 inches.

Cost to Operate—Averages 2 cents per hour. Think how cheap this is when you consider that about 4 tubs of clothes can usually be washed in that time.

Water Drain—Water is drained completely out of the tub by means of faucet situated conveniently directly before door which opens in front of machine.

conveniently directly before door which opens in front of machine.

Control—Two simple levers control both the washing and wringing operations. Shipping weight, 215 pounds, crated.

Order by No. 186 E 559

Easy Payment Plan

\$144.85

No Money Down

After 30 days' trial send us \$10 as first payment

Cash Price

\$129⁸⁵

Shipped from stock at Chicago.

Special Order Blank for Washing & Sewing Machines

| Article No. | | Name of Machine | | Price | | Please check off the questions in next line. Your Electric Light Company will be glad to help you. | | | | | | |
|---|----|-----------------|-----|---|--------|--|----------------------------|-------------------|----|----|-----|---|
| What Voltage? | 32 | 110 | 220 | What Current? | Direct | Alternating | If Alternating What Cycle? | 25 | 40 | 60 | 125 | Special Voltage furnished Extra Charge of \$5.00 to |
| Should you send cash with order, state amount here \$ | | | | If I should find the machine not up to my expectations, I will notify you in writing, within 30 days after receiving the machine, and you are to give me instructions for returning it at your expense. You will also return to me the freight charges I have paid. | | | | | | | | |
| Your Name | | | | R. F. D. | | Box Number | | Street and Number | | | | |
| Post Office | | | | County | | | | State | | | | |
| Shipping Point | | | | County | | | | State | | | | |

Should You Order on Easy Payment Terms, Please Sign This Agreement

Montgomery Ward & Co., Chicago

Gentlemen:

Please ship me the _____, Article No. _____, without obligation on my part to keep it unless I am satisfied with it at the end of thirty days trial.

At the end of thirty days trial, if I decide to keep the machine, I promise then to send you _____ dollars as first payment, and I further promise to pay you _____ dollars each month until the full purchase price has been paid.

My occupation or business is _____

I have lived here since _____

Give references: Banks or business houses preferred.

Name _____ Address _____ Business or occupation _____

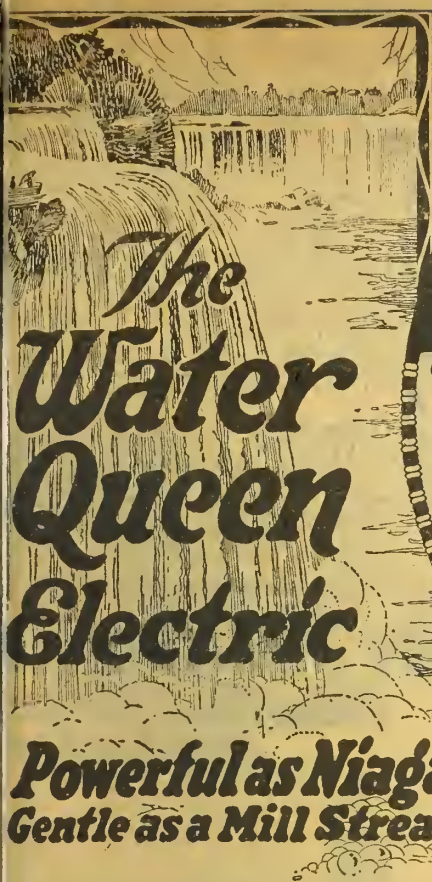
I am to pay no interest. Title to the machine is to remain in you until fully paid for when become my property.

If I decide not to keep the machine, I agree, within thirty days from the date I receive the machine to notify you in writing to send me return shipping instructions, and I will promptly return machine to you in good order, at your expense.

I assure you I am worthy of your confidence, keep my promises faithfully, pay my obligations promptly, and make the following answers for the purpose of inducing you to ship the machine to me upon the conditions herein mentioned.

Please Sign Here _____

If less than five years give former address _____



The Water Queen Electric

**Powerful as Niagara!
Gentle as a Mill Stream**

Send No Money

Try it in Your Own Home

THE only practical way to select a washing machine is to test it in your own home, yourself, with your own washing. For that reason, we offer to send the Water Queen to your home without one cent in payment. Then, after 30 days, if it fails to please you, send it back and we will refund all the freight charges. Should you decide to keep it, send us \$10.00 a month until the machine is paid for. All you need do now is to fill out the coupon on page 696, and mail it to our Chicago office. The greatly improved freight situation insures prompt delivery to your home.

IT'S a beautiful sight you see when the cover is lifted off the Water Queen! Rich lather and soap bubbles are tossed rapidly about by the Eccentric Action of the revolving cylinder. Press the button and the washer stops. Remove the top of the octagonal cylinder and lo and behold!—The clothes are spotlessly clean.

Blankets, laces or your batch of men's work clothes all testify to the fact that the Water Queen principle is correct.

Washes Without a Rub!

To wash clothes without a single rub is a new idea to thousands of women! They have grown accustomed to rubbing their clothes week after week, little realizing that they are rubbing their clothes away! Our Water Queen is so designed that it cannot rub the clothes. Pure soapy water and air is universally recognized as the best combination ever brought together to wash clothes effectively. And the Water Queen owes its success to that fact!

What Could Be More Simple!

Everything has been thought of to shorten the time spent washing. Absolutely eliminates the drudgery of washday. A simple push button—within easy reach of the operator—starts or stops the Water Queen.



Wrings Without in Any Way Endangering the Fingers

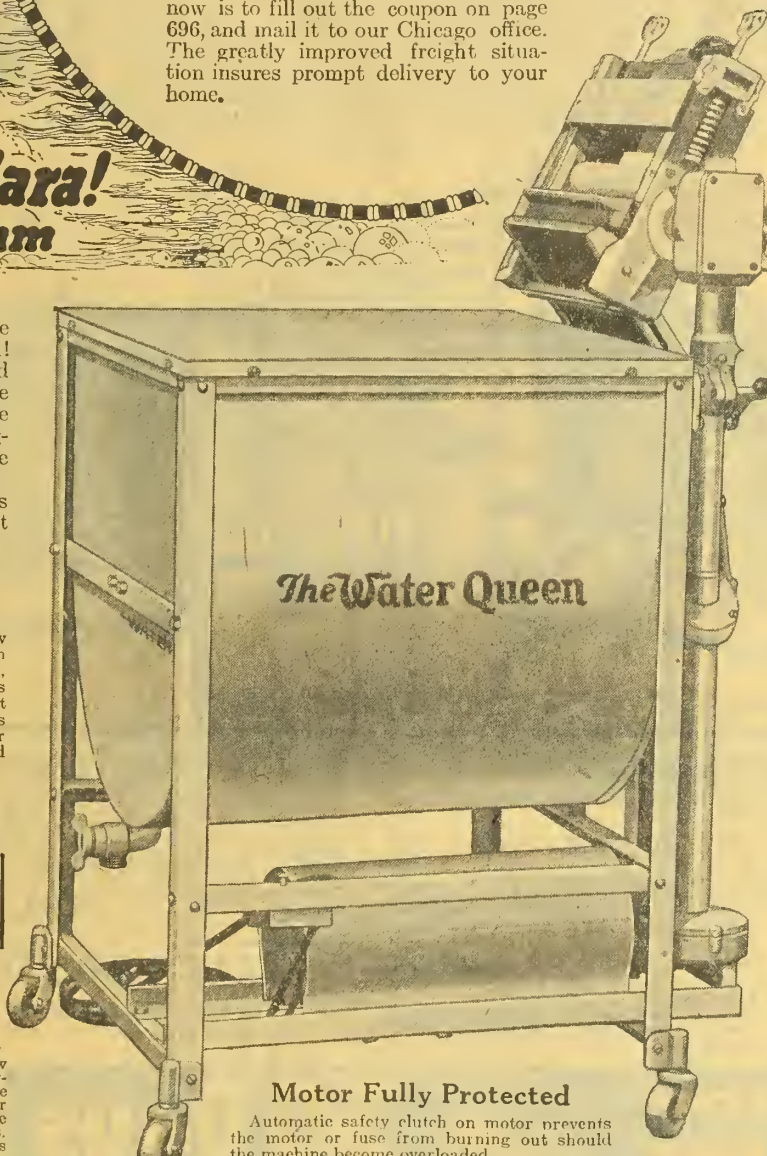
Inspect the tilt of the wringer carefully. Notice how the operator simply lays the clothes on the rollers. Gravity draws the garment through the wringer rolls into the basket below. This feature means added protection for you and increased wringing efficiency. Eliminates the possibility of clothes becoming entangled on rollers. Also has safety release which, when pressed, removes all pressure from rolls.

The wringer can be locked by a convenient lever. Easily released and swung into any position desired.



Can Be Slanted in Either Direction or be used in Upright Position

The Water Queen



Motor Fully Protected

Automatic safety clutch on motor prevents the motor or fuse from burning out should the machine become overloaded.

OUR 110-volt, 60-cycle, alternating current motor has ample power to run machine and wringer at the same time. Ten feet of insulated cord and a plug to attach to the ordinary electric light socket is included.

The Water Queen occupies a floor space measuring 25½x25½ inches.

Water Queen ARMCO IRON Model

Will not rust like regular galvanizing. The toughest metal of its kind that we know of.

Shipped from Chicago Stock.

Water Queen Copper Body Model

Made of high-quality copper, heavy gauge. Will give a lifetime of satisfactory service.

Shipping Weight, 240 Pounds.

Armco Iron Body

186 E 3000
Cash Price

\$125⁰⁰

Easy Payment Plan

No Money Down
After 30 days' trial send us \$10 as first payment.

\$139.50

Copper Body

186 E 3001
Cash Price

\$143⁵⁰

Easy Payment Plan

No Money Down
After 30 days' trial send us \$10 as first payment.

\$158.50

Use Special Washing Machine Order Blank on Page 696.

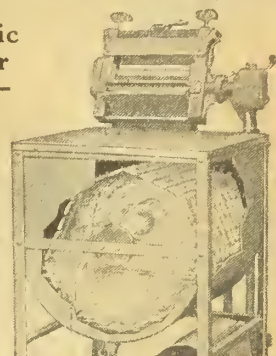
Easy Payments

Latest Model

Our Water Queen represents the very latest improved power washing and wringing features. Actual photographs appearing below clearly show the ease with which the entire washing is disposed of.

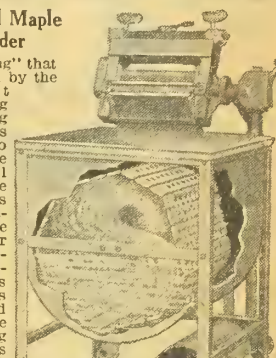
Eccentric Cylinder Action—

Notice both cylinder illustrations — see how the cylinder itself sways from side to side with each revolution. This action, added to its revolving motion, gives the Water Queen its remarkable cleansing powers. The most stubborn dirt loosens its hold and flows out of the clothes in the path of this powerful action. It actually gives you the combined advantages of the vacuum, the regular cylinder and the eccentric type of washing machine.



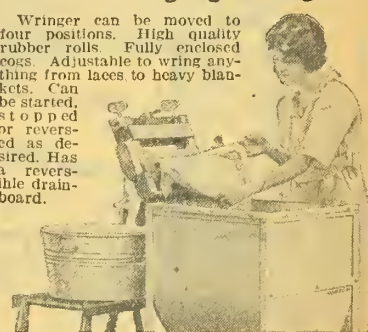
Octagonal Maple Cylinder

The "fling" that is produced by the constant tumbling and tossing of the clothes to and fro against the octagonal sides of the cylinder is another reason for the Water Queen's unusual effectiveness. As the dirt is separated from the washing it drops through the perforated cylinder to the bottom of the tub. Handles on top make it easy to lift cylinder out. Capacity of cylinder, 6 sheets or 15 shirts. Measures, 19x16 in.



Power Swinging Wringer

Wringer can be moved to four positions. High quality rubber rolls. Fully enclosed gears. Adjustable to wring anything from laces to heavy blankets. Can be started, stopped or reversed as desired. Has a reversible drain-board.



Slanting power wringer guides clothes to rinsing water. Notice convenient height.

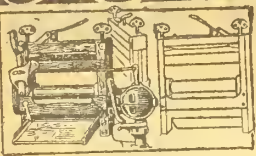


The Water Queen will wash your second batch of clothes while the first batch of clothes is passing through the wringer again from rinse water to bluing water.

No time lost with a Water Queen! While the first batch of clothes is passing through the wringer again from rinse water to bluing water, the second batch of clothes is being washed.

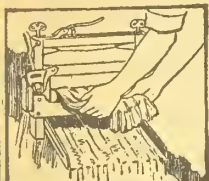


When the washing is completed the Water Queen is easily drained. The faucet (see large photograph) permits a pail to be placed on the floor under it. It is threaded for standard hose coupling so that a hose can be used to guide water to drain, should you desire.



Four-Position Swinging Wringer

With it you wring your clothes from the washtub into the rinse tub, then into the bluing water and from there into the basket. It turns readily in any direction, saving you as much time as the washer does. Wringer can be used while washer is in operation. The 11-inch rubber rolls allow plenty of space when extra large pieces are to be wrung.



Has Large Size Drain Board

When wrung from the clothes the water falls back into the tub. The extra large size reversible drain board takes away all possibility of any water dripping on the laundry floor.



Safety Pressure Release

Enables operator to remove all pressure on clothes instantly.



The Triumph Single-Tub Model

The Platform Model has a steel platform, 24 inches wide and 43 inches long for holding two tubs and the basket. Washer can be operated by hand should any emergency occur.

136 E 140—Triumph Engine Power Washer. Platform Model, as illustrated. Complete with wringer and 10-in. drive pulley. Should not be operated faster than 200 R.P.M.
Ship. wt., 215 lbs. **\$52.75**
Cash Price.....
Time Payment Price..... **58.75**
(No money down and \$6.00 a month until paid. Use order blank on page 696).

Shipped Promptly from Stock at Chicago

136 E 141—Triumph Electric Power Washer. Platform Model. Complete with high-grade 110-volt, alternating current motor, 60 cycles; 10 feet of reinforced cord and plug to attach to ordinary electric light socket; also four-position wringer. Mounted on easy-rolling casters.
Ship. wt., 240 lbs. **\$86.50**
Cash Price.....
Time Payment Price..... **96.75**
(No money down and \$9.00 a month until paid. Use order blank on page 696).

Please state current, voltage and cycles when ordering. Special size motors furnished at an additional charge of \$5.00 to \$10.00.

Send No Money

30 Days' Free Trial—Easy Monthly Payments

Have a demonstration in your own home! Use a Triumph Washing Machine for 30 days without one cent in payment. Then, after 30 days, if it fails to please

you, send it back and we will refund the freight charges. Should you decide to keep it, pay for it while you use it, our EASY PAYMENT WAY.

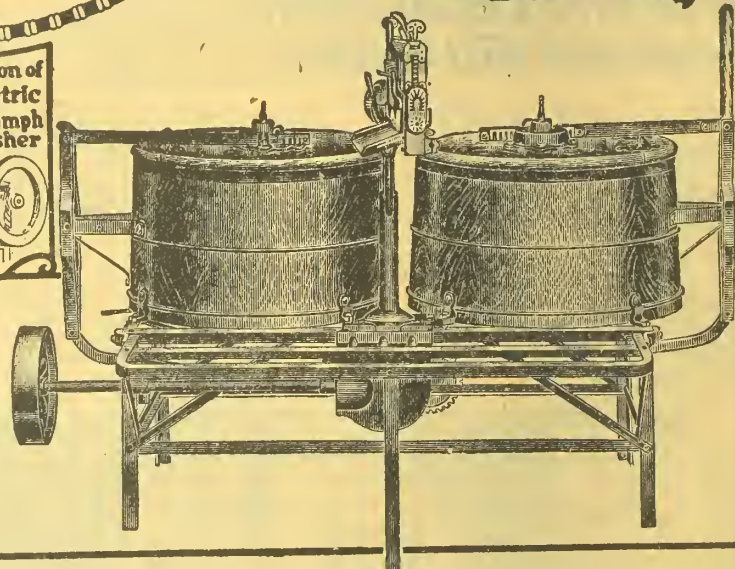
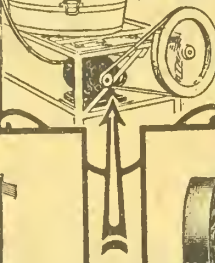
Electric and Engine Drive Washers

THERE are few working parts on the Triumph and these are arranged so that binding and excessive wear are impossible. The gears are enclosed to prevent any danger of accident.

The Electric Triumph has the motor mounted on a fibre block which is bolted to the steel frame of the machine. The drive shaft is fitted with a grooved pulley, which is driven by a round belt from the motor.

The extra large sized tub is made of finest quality Virginia White Cedar. This wood withstands the action of water for ages. The cover is selected Cypress. On it is mounted the mechanism which operates the dolly or disc inside the tub. Cover opens easily as there are no heavy parts to lift.

Showing Location of Motor on Electric Triumph Washer



The Two-Tub Triumph for Extra Large Washings

Are your washings unusually large? The Triumph Two-Tub Model is built to wash clothes in large quantities. It has two tubs instead of one. You can wash clothes in both tubs and wring at the same time. Simple levers also enable you to operate one tub alone or the wringer alone, just as the occasion requires. Washer can be operated by hand, should any unforeseen emergency occur.

136 E 133—Triumph Engine Power Washer. Two-Tub Model. Complete with wringer, 10-inch drive pulley. Should not be operated faster than 200 R.P.M.
Ship. wt., about 200 lbs. **\$69.50**
Cash Price.....
Time Payment Price..... **78.50**
(No money down and \$8.00 a month until paid. Use order blank on page 696).

Shipped Promptly from Stock at Chicago

136 E 134—Triumph Electric Power Washer. Two-Tub Model. Complete with high-grade 110-volt, alternating current motor, 60 cycles; 10 ft. of reinforced cord and plug to attach to ordinary electric light socket, also wringer. Easy-rolling casters.
Ship. wt., about 325 lbs. **\$105.50**
Cash Price.....
Time Payment Price..... **118.50**
(No money down and \$12.00 a month until paid. Use order blank on page 696).

Please state voltage, current and cycles when ordering. Special voltages and currents furnished at an additional cost of \$5.00 to \$10.00.

Thuro Power Vacuum Washer

30 Days Free Trial

The washline never lies! Because of this fact, we unhesitatingly offer to send the Thuro to your home for 30 days' trial. Then, at the end of 30 days, if it proves satisfactory, send us the small amount indicated below each month until the full purchase price has been paid. (Use special order blank on page 696).

By means of its efficient vacuum process the Thuro washes the clothes spotlessly clean in about one-fourth the time it used to take by hand.

Convenience is the outstanding characteristic of this new Thuro Vacuum Washer. You have a folding frame for holding two tubs and it can be put out of the way when not in use. The wringer swings in any direction in order to wring the clothes in the handiest position. It has a safety clutch lever which easily starts it or reverses it, if necessary. The rolls are 10x1 1/4 inches.

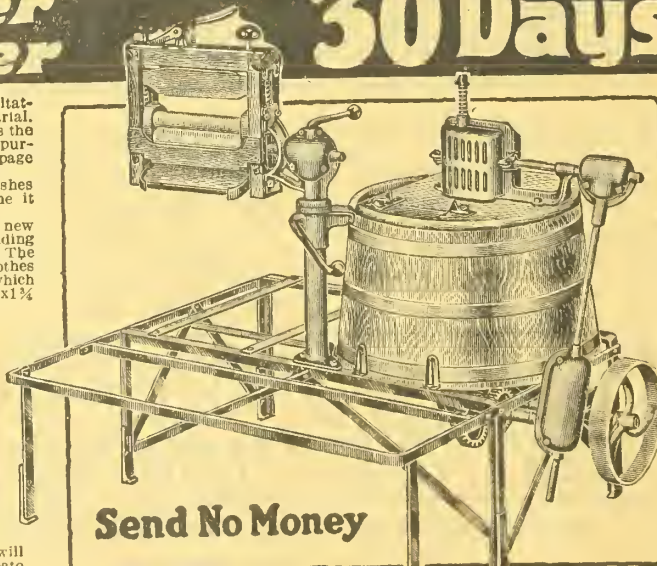


How It Washes So Quickly

The operation is simplicity itself. Just turn on the power. After that the washer automatically starts when the lid is closed and stops when it is opened. The whirling vacuum cup is dome-shaped, and galvanized to prevent rust. It produces a positive cleansing current which will not harm the most delicate fabrics.

There are no belts or chains to catch the clothing—the washer is entirely gear driven. All of the gears and transmission parts are enclosed to avoid the danger of accident.

The frame on which the tub rests is made of strong channel iron, 43 in. long, 25 in. wide, 16 in. high. The folding feature makes it convenient.



Send No Money

The tub is of Southern Cypress, which is the best water-resisting wood known. The interior has corrugated sides and bottom, which add to its effectiveness in cleaning. The outside is nicely finished. Special screw plug type water drain with rubber hose attachment. Tub capacity, 18 gallons. Inside measurements: 22 1/2 in. diameter at bottom; 20 in. at top; 12 1/2 in. high.

Thuro with Pulley for Engine Drive

136 E 163—Main drive pulley for operating with engine. 11 1/2 in. in diameter with 2-in. face which should run 2 revolutions per minute. This is important. Shipping weight about 225 pounds. **\$55.75**

Cash Price.....
Time Payment Price..... **62.50**
(No money down and \$7.00 a month until paid. Use order blank on page 696).

The Thuro with Electric Motor

136 E 169—Washer with 110-volt electric motor, alternating current, 60 cycles.

Cash Price..... **\$91.50**
Time Payment Price..... **\$101.50**

(No money down and \$8.50 a month until paid. Use order blank on page 696).

When ordering electric machines be sure to give voltage, current and cycles.

Ship. wt., 250 lbs.

Shipped promptly from Stock at Chicago.

Machines carried in stock with 110-volt electric motor alternating current, 60 cycles. Motors for other voltages and currents furnished at an additional charge of \$5.00. Electric machines are fitted with casters for easily moving them about.



Quality Boilers and Wringers

Decidedly Low in Price



Note Hook for Hanging Boiler on Tub when Pouring

Extra Heavy Copper

\$5.48

Our Best Boiler

Stationary Wood Grips, Cannot Burn the Hands
Made extra large of extra heavy copper, the best that money can buy. 22 of bottom, 23x12 1/4 inches. Polished copper on the outside, heavily lined inside. Cannot discolor clothes. Top edge is reinforced by a steel wire rod. Sides are corrugated. Double seamed and soldered, leak-proof. Cover is made seamless of refined steel. Stationary wood grips. Capacity, 14 1/2 gals. Actual weight, 10 1/2 lbs.
86 E 215—Shipping weight, 18 pounds. \$5.48



High-Grade Copper Boiler

Wood Grip Handles Cannot Burn the Hands

\$4.55

Not available. An exceptional value at this low price. Made of heavy solid copper, polished outside, tinned inside. Will not discolor clothes. Steel wire rods and corrugations on the sides add strength of boiler. Double seamed and soldered, leak-proof. Have stationary wood grip handles.

86 E 216—Size No. 8, bottom, 10 1/2 x 20 1/4 in. Actual wt., \$4.55
lbs., Cap., 10 1/2 gals. Ship. wt., 15 lbs.
86 E 217—Size No. 9, bottom, 11 1/4 x 22 1/4 inches. Actual weight, \$4.98
lbs., Cap., 13 gals. Shipping weight, 17 lbs.



High-Grade Charcoal Tin Boiler

\$3.65

86 E 218—Extra heavy high-grade charcoal tin with full-weight copper bottom. Extra strong heavy wire rim and corrugations on sides. Double seamed and soldered, leak-proof. Wooden grips. Size, No. 9, flat bottom, 11 1/4 x 22 1/4 in. Cap., 13 gals. Ship. wt., 17 lbs.
Not Available. \$3.65



Heavy Tin Boiler with Copper Bottom

\$2.85

86 E 219—Heavy tin body, with seams securely soldered. Heavy copper bottom and rim, tinned on inside. Metal drop handles, securely riveted. Flat bottom. Size, No. 9. Bottom measures 11 1/4 x 22 in. Capacity, 13 gal. Ship. wt., 4 lbs.
Not Available. \$2.85



Tin Boiler—Copper Bottom

\$2.25

86 E 221—Low-priced medium weight wash boiler No. 1X Tin. Securely double seamed and leak-proof. Copper bottom, tinned on inside. Size No. 8, bottom measures, 10 1/4 x 20 1/4 in. Capacity, 10 1/2 gal. Ship. wt., 12 lbs.
Not Available. \$2.25

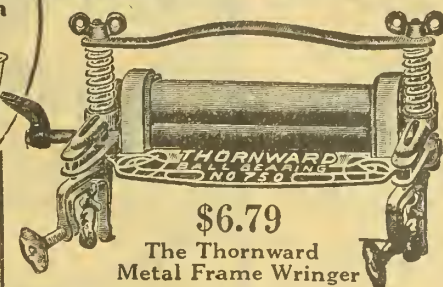


Of Heavy Galvanized Iron

\$1.98

86 E 220—A substantial boiler that will give good service. Made of heavy galvanized iron. Wooden grips. Strong tin cover. Full size, No. 9. Length, 22 inches. Width, 11 1/4 inches. Cap., 13 gal. Ship. wt., 16 lbs.
Not Available. \$1.98

Guaranteed 5 Years



\$6.79

The Thornward Metal Frame Wringer

If you prefer a metal frame wringer, you cannot buy a better one than this. Guaranteed for 5 years. Frame is of high-grade malleable iron, fitted with easy running steel ball bearings and fully enclosed cogwheels. Spiral pressure springs insure even pressure on clothes. Hold-fast tub clamps are furnished which fasten the wringer securely to any galvanized iron, wood or fibre tub. Clamps open 1 1/2 inches. Rolls are of the best elastic rubber, size, 10x1 1/4 in.
486 E 202—Ship. wt., 26 lbs. \$6.79

Our Best Wringer \$6.79

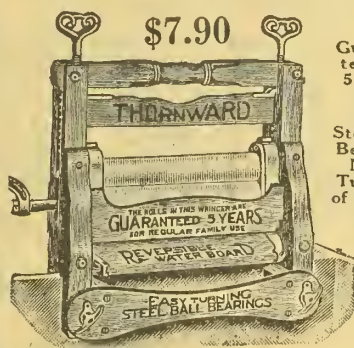
This wringer compares favorably with any wringer made regardless of price. Fitted with old-fashioned elastic rubber rolls, that are fully guaranteed for 5 years, but for ordinary family use will last much longer. Fitted with steel ball bearings. Easily accessible for oiling. Hold-fast tub clamps fasten wringer securely to any galvanized iron, wooden or fibre tub.

Cogwheels are on the inside, fully enclosed to prevent injury to fingers and clothes, a feature that will be appreciated by every woman.
486 E 200—Size of rolls, 10x1 1/4 inches. Ship. wt., 26 lbs. \$6.79
486 E 201—Size of rolls, 11x1 1/4 inches. Ship. wt., 27 lbs. 7.25

Guaranteed 5 Years



Has Steel Ball Bearings



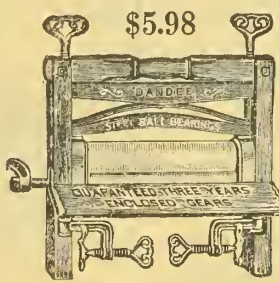
\$7.90

Guaranteed for 5 Years

Steel Ball Bearings Make Turning of Handle Easy

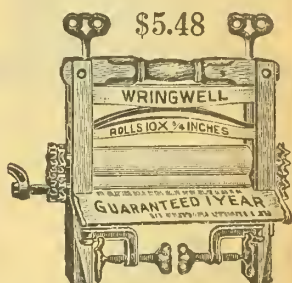
For stationary or round tubs. Reversible waterboard. Frame is of selected maple. Cogwheels are fully enclosed. Improved steel spiral pressure springs insure even pressure on clothes. Clamps open 2 inches and hold wringer securely to tub. Selected elastic rubber rolls, size, 11x1 1/4 inches.

486 E 203—Ship. wt., 33 lbs. \$7.90



\$5.98

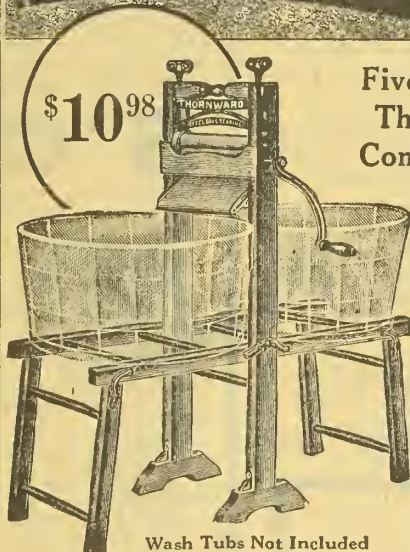
Guaranteed 3 Years
Frame is well constructed of maple, fitted with steel ball-bearings and fully enclosed cogwheels. Guaranteed for 3 years. Size of rolls, 10x1 1/4 inches. Fits any style tub. Ship. wt., 25 lbs.
486 E 207—\$5.98



\$5.48

Guaranteed for 1 Year
Size of rolls, 10x1 1/4 in. Hardwood frame, fitted with hold-fast clamps. Fastens to any tub. 486 E 210—Ship. wt., 24 lbs. \$5.48

The Practical Bench Wringers



\$10.98

Five-Year Guaranteed Thornward Wringer Complete with Bench

Selected Hard Maple and Beechwood Bench with 5-year guaranteed Wringer. Reversible waterboard.

Steel ball bearings, fully enclosed cogwheels. Size of rolls, 11x1 1/4 inches. Holds two tubs. Folds into small space when not in use. Ship. wt., 50 lbs.

186 E 204—(without tubs) \$10.98

Not Available.

3-Year Guaranteed Dandee Bench Wringer

186 E 209—Same as the Thornward but fitted with a 3-year guaranteed wringer. Size of rolls, 10x1 1/4 in. Ship. wt., 50 lbs.

\$9.85

Not Available.



Wash Tubs Not Included—For Wash Tubs See Complete Selection on Page 701



\$7.45

Bird Cage Spring and Chain
Brass finish. Good value. Extremely long. 24 inches. Ship. wt., 4 lbs.
86 E 2188 25c

Brass Wire Cage

186 E 2183—Brass wire. Brass screen seed guard. Body, 10 1/4 x 7 1/4 in. Ht., 13 1/4 in. Base width, 9 1/4 in. Ship. wt., 4 lbs. \$7.45



186 E 2180—Steel wire, painted white with colored trimmings. Body, 11 x 7 1/2 in. Ht., 16 1/2 in. Base, 13 1/2 x 10 1/2 in. Ship. wt., 4 lbs. \$3.75



\$9.98

Brass Bird Cage

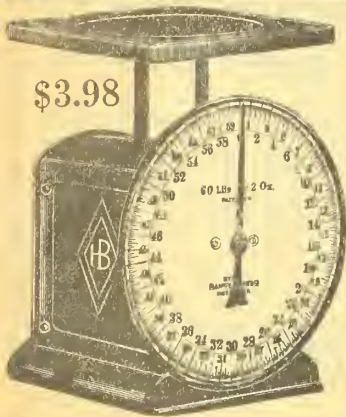
186 E 2184—Mission pattern. Satin finish brass. Sliding drawer base. Brass screen seed guard. Body, 10 1/2 x 7 1/4 in. Base, 11 1/4 x 11 in. Ship. wt., 5 lbs. \$9.98



Wire Bird Cage Hook
Extra heavy steel hook, with brass finish. Length 10 in. Ship. wt., 6 ounces.
86 E 2190 19c

A \$45.00 Course in Dressmaking for \$13.50! See this Unusual Offer on Page 711 in Our Sewing Machine Section.

Every Home Should Have a Dependable Scale



\$3.98

All of our spring scales are intended for family use and are accurate for all practical purposes, but are not legal for trade use in all states.

60-Pound Scale

A Very Practical Size for General Use

Capacity, 60 lbs., by 2 oz. Made of steel, extra strong and handsomely japanned and decorated. Heavy steel top plate. Large white dial with plain figures. Ship. wt., 7 lbs.

486 E 2105—With top plate. Each.....\$3.98

With Tin Scoop

The same as above with large tin scoop instead of the platform. Capacity, 60 lbs. by 2 oz. Ship. wt. 7 lbs.

486 E 2106—Price.....\$4.75



\$3.29

Capacity, 24 pounds by ounces

Blue Beauty Family Scale

Capacity, 24 pounds by ounces. Made of best rolled steel, beautifully finished in blue enamel and ornamented. Large white enameled dial, with glass front and nickel-plated rim. Distinct numerals, easy to read. Diameter of dial, 6 1/4 inches over all. White tile top platform, 6x6 inches. Ship. wt., 6 lbs.

486 E 2108—

Price, each.....\$3.29



Net Weight Dairy Scales

These scales are accurate. One indicator hand. Before weighing put in empty container, on scale, loosen thumb screw and set pointer back to zero. Then tighten thumb screw.

After that, the scale gives actual weight of anything put in container. Large dial with distinct black figures. Milk record blank included with scale.

86 E 2110—Capacity, 40 pounds by tenths of a pound. Ship. wt., 3 1/2 lbs.

Price.....\$3.98

86 E 2111—Capacity 60 pounds by tenths of a pound. Ship. wt., 4 1/2 lbs.

Price.....\$4.65

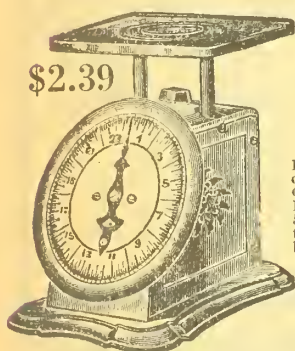
Capacity, 24 pounds by ounces

The Little Detective

Made of steel throughout. Large, white enameled, slanting dial, 6 in. diam., with gilt border. One row of figures, easy to read. Enameled steel top plate. Size, 5 1/4 in. square. By means of thumb screw at top, scale can be instantly adjusted to allow for a basket or pan. Ship. wt., boxed, 4 lbs.

486 E 2101—

Each.....\$2.39



\$2.39



\$2.89

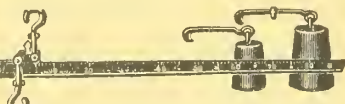
Tile Top Family Scale

Capacity 24 pounds by ounces. Made of steel, handsomely japanned. Polished brass finished dial and sanitary white tile top plate. Can be instantly adjusted to make proper allowance for a pan or basket. Accurate. Capacity, 24 lbs. by ounces. Ship. wt., 6 lbs.

486 E 2102—Price.....\$2.89

Scale Beams

Complete with two poises. For roughly weighing cotton, grain, etc. Weigh by pounds only, do not show fractions of a pound.



Spring Balances

25 Lb. Capacity

86 E 2126—Polished brass dial. To weigh 25 pounds by 1/2 pounds. Ship. wt., 6 oz.

Each.....19c

50-lb. Capacity.

86 E 2127—Polished brass dial. To weigh 50 pounds by pounds. Ship. wt., 8 oz.

Price.....37c

Heavy Spring Balances

86 E 2129—Strongly made. Better in many ways than the old style. Make good ice scales. Shipping weights, 1 to 2 1/2 lbs.

| To Weigh Pounds | Price Each |
|-----------------|------------|
| 50x 1/2 | \$.98 |
| 100x1 | \$ 1.98 |
| 150x1 | \$ 2.98 |
| 210x2 | \$ 4.98 |



Milk Record Blanks

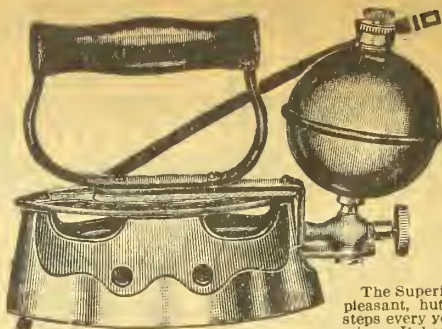
86 E 2114—Per Hundred.....98c

Platform Scale

Guaranteed Accurate Will Pass All State Requirements

The quality of material and expert workmanship combined with the improved design, make this scale one of the greatest values ever offered. Pivots are of tool steel carefully hardened, solid brass beam and sliding poise, hand graduated. Platform measures 10x14 inches. Will weigh by 1/2 ounces in the scoop and 1/4 pounds by the platform. Nicely finished in red and black. Furnished with single or double beam.

| Article Number | Capacity | Style of Beam | Shipping Weight | Price |
|----------------|------------|---------------|-----------------|---------|
| 186 E 2122 | 240 Pounds | Double | 60 Pounds | \$21.95 |
| 186 E 2123 | 240 Pounds | Single | 60 Pounds | 18.95 |
| 186 E 2124 | 440 Pounds | Double | 60 Pounds | 23.75 |
| 186 E 2125 | 440 Pounds | Single | 60 Pounds | 21.75 |



The Handy Superior Gasoline Iron

93 per cent of the Heat is Furnished by the Air. Only 7 per cent is Furnished by the Gasoline.

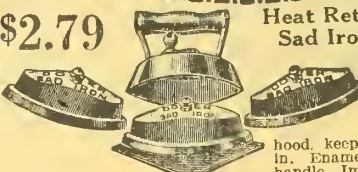
The Superior Gasoline Iron not only makes ironing pleasant, but in addition saves millions of footsteps every year and pays for itself in low cost of operation. It heats quickly and operates five hours on one filling of gasoline. Perfectly safe—easily adjusted. Iron the Superior way—it is much quicker and quite different than ironing beside a hot stove all day. Ship. wt., 10 lbs.

\$4.85
Safe!
A Big
Time
Saver

486 E 245—Price, complete with directions for use.....\$4.85

\$2.79

Heat Retaining Sad Iron Set



Detachable pressed steel

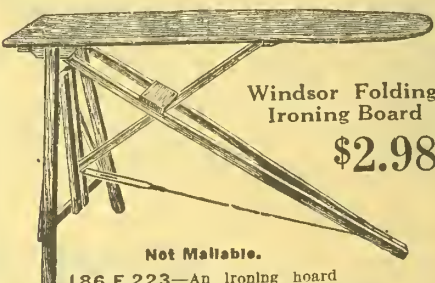
hood, keeps the heat in. Enameled wooden handle. Improved lock on wedge principle. Holds iron rigid and secure. Ironing surface (in blued finish) is very smooth, slightly convex and has round edges to prevent shirring. Makes ironing easy, quick and comfortable. Set consists of three oval irons weighing, with hood attached, 5 1/4 pounds each, and one covered stand, 6x6 inches. Shipping weight, per set, 18 pounds.

486 E 230—Sad Iron Set in Heavily Nickel-Plated Finish. Price.....\$2.98

486 E 231—Sad Iron Set in Smoothly Polished Finish. Price.....\$2.79



Ordinary Irons have no Protection for the Hands



Windsor Folding Ironing Board

\$2.98

Not Mailable.

86 E 223—An ironing board that stands firm as a rock. Does not wiggle. The ironing surface is 14 1/2 x 57 inches. The longest skirt or one-piece suit can easily be slipped over the board. Convenient height from the floor. Takes up small space when folded. Ship. wt., 17 lbs.

Price.....\$2.98



Yellow Naphtha Soap

Prof. Katz's Brand

10 bars, 54c

A Yellow Naphtha Soap for all household purposes. For laundering white clothes, soap the garments well, roll them up and allow to soak 20 or 30 minutes in cold water. Then wash out and rinse in cold water. Wash colored garments in cold or luke-warm water without soaking. \$.54
AE 3186—10 bars.....\$.54
AE 9462—50 bars (box).....1.58
AE 9463—100 bars (box).....5.15
Shipping weight 100 bars, 72 lbs, 50 bars, 35 lbs.

We reserve the right to follow the market on soaps should there be any sharp advance.

Washing Machine Soap Chips

Our Soap Chips may be used anywhere the finest kind of soap is required. One-half pound of chips is sufficient for 3 gallons of water in the washing machine. For soaking clothes or boiling them, just one cupful of chips will suffice for a fair sized washing. Excellent for washing woollens, silks or the finest fabrics. One of the finest and most economical soaps you can buy. Complete directions in each box.

AE 2429—5-pound carton.....\$1.10
Shipping weight, 6 pounds.

5-lb. Box

\$1.10



The Original and Only Genuine Mrs. Potts Enterprise Sad Iron Set

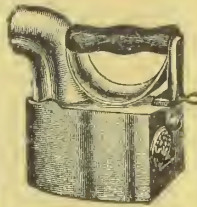
486 E 234—Set consists of 4-pound polishing iron with red points, two regular double point irons, weighing 5 and 5 1/2 pounds, one detachable cold handle and iron stand. These irons all give the best of satisfaction. Ship. wt., 17 lbs.

Price, per set.....\$2.98

86 E 237—Extra quality dies for Mrs. Potts' irons. Ship. wt., 12 oz.

Each.....\$1.00

Charcoal Iron



86 E 238—Heat is regulated by regular double Burns coal five coils. Fully polished. Cool handle with slip. Ship. wt., 7 lbs.

Price.....\$2.98

Sad Irons

86 E 239—Smooth cast with extra polished face and enamel handle cast in. Sizes given a little over actual wt. Give size

6 lbs.....\$1.00
7 lbs.....\$1.00
8 lbs.....\$1.00
9 lbs.....\$1.00

Folding Double Wash Tub Bench



\$2.29

Every woman will appreciate the usefulness and convenience of this well made bench. The upright piece is so constructed that any kind of wringer can be fastened to it with room enough on each side for tubs. Water board on both sides. Stands solidly when in use; may be folded up for putting away. Made of nicely finished hardwood. Length, 51 in. Width, 17 in. Ship. wt., 24 lbs.

186 E 282—Price.....\$2.29

Not Mailable.

34c for 6 Boxes



Round body. Both ends pointed. No splinters. Each contains about 400 picks. Ship. wt., 24 boxes, about 3 lbs.

86 E 2666—3 boxes.....\$1.00

86 E 2667—12 boxes.....\$1.00

86 E 2668—24 boxes.....\$1.00

LAUNDRY SUPPLIES

Cyclone Suction Washer

89c

Takes the dirt out of any kind of wash, heavy or light materials. It cleans by suction. You simply work it up and down on the clothes. Directions printed on handle of washer. Has a 27-in. wooden handle. The washer itself is of good quality non-rusting tin.

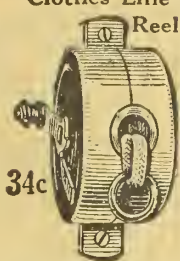
486 E 299—Genuine Cyclone Washer. Shipping weight, 3 pounds. 89c

486 E 300—Vacuum Washer. Simpler construction than above, but very effective. Has 22-inch wooden handle. Shipping weight, 1 pound. 39c



BOTTOM VIEW

Genuine Blue Bird Clothes Line Reel

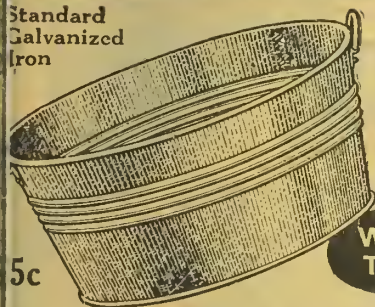


Occupies only 3x3 in. Contains about 30 ft. of strong braided line. The ratchet enables you to tighten the line as wanted and prevents its slipping back. Furnished complete with screws and hooks. Ship. wt. 1 1/4 lbs.

86 E 258— 34c

Low Priced Galvanized Wash Tubs

Standard Galvanized Iron



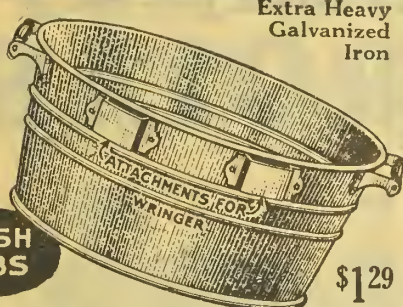
Well made and thoroughly galvanized. Malleable iron drop handles. Not Mailable. 86 E 285—Diam., 20 in. Depth, 10 1/2 in. Ship. wt., 8 lbs. 75c

86 E 286—Diam., 22 1/2 in. Depth, 10 1/2 in. Ship. wt., 10 lbs. 84c

86 E 287—Diam., 24 in. Depth, 11 in. Ship. wt., 12 lbs. 98c

WASH TUBS

Extra Heavy Galvanized Iron



Absolutely water-tight. Heavy and excellent tubs. With convenient wringer attachment. Heavy rigid handles. Not Mailable. 86 E 283—Top diameter, 22 1/2 in. Depth, 10 1/2 in. Ship. wt., 10 lbs. 1.29

86 E 284—Top diameter, 24 in. Depth, 10 1/2 in. Ship. wt., 11 lbs. 1.43



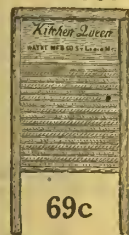
Galvanized Pails

486 E 290—Standard quality. Full weight. Galvanized after they are made.

Cap. Ship. Price Wt. Lbs. Each

12 2 1/2 29c

14 2 3/4 34c



69c

486 E 276—The Kitchen Queen. Special washboard, metal rubbing surface, 10 1/2 x 11 in. Ship. wt., 3 lbs. 69c

486 E 277—Has a hard solid brass rubbing surface, 10 1/2 x 11 in. with an improved crimped surface which will never rust or discolor. Ventilated back. Full dimensions, 12 1/2 x 24 in. Ship. wt., 3 lbs. 79c

486 E 278—Double Zinc Surface. Double crimp on one side, plain crimp on other. Rubbing surface, 10 1/2 x 11 inches. Strong hardwood frame. Ship. wt., 4 lbs. 79c

486 E 279—Galvanized after being formed. Heavy wire handle, with wooden grip. Diam., 1 1/2 in. and 1 3/4 in. Ship. wts., 4 and 5 lbs. 55c

486 E 280—U. S. Wooden Clothes Pins. Patent galvanized spring. Ship. wt., per gross, 4 lbs. 52c

Per box, 6 dozen. 98c

10 Doz. 42c

Wooden Clothes Pins

86 E 306—In packages containing 10 doz. Ship. wt., 2 1/2 lbs. 42c

486 E 305—Strong and smoothly finished. In boxes containing 60 doz. Ship. wt., 15 lbs. 2.29

Per box. 2.29

Iron Hooks 4 for 19c

86 E 337—Japanned. Length, 2 in. Ship. wt., 16 oz. 19c

Set of four 19c



Window Brush

86 E 413—Much superior to cloth for washing windows. Solid 8-in. back, well filled with 2 1/4 in. soft bristles. Ship. wt., 10 oz. 59c

Each. Handle Not Furnished

Rubber Window Cleaner

86 E 1893—Rubber edge, metal frame. Width, 12 in. Pole not furnished. Wt., 1 lb. 24c

Combination Mop and Scrub Brush

486 E 409—Wrings itself out easily by the turning of a crank. Complete with long handle, woven cotton mop and good grade scrub brush. Shipping weight, 5 lbs. 1.69

486 E 394—Ship. wt., about 4 lbs. 98c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

486 E 394—Ship. wt., about 4 lbs. 98c



Mop Pail

486 E 278—Double Zinc Surface. Double crimp on one side, plain crimp on other. Rubbing surface, 10 1/2 x 11 inches. Strong hardwood frame. Ship. wt., 4 lbs. 79c

486 E 279—Galvanized after being formed. Heavy wire handle, with wooden grip. Diam., 1 1/2 in. and 1 3/4 in. Ship. wts., 4 and 5 lbs. 55c

486 E 280—U. S. Wooden Clothes Pins. Patent galvanized spring. Ship. wt., per gross, 4 lbs. 52c

Per box, 6 dozen. 98c

10 Doz. 42c

Wooden Clothes Pins

86 E 306—In packages containing 10 doz. Ship. wt., 2 1/2 lbs. 42c

486 E 305—Strong and smoothly finished. In boxes containing 60 doz. Ship. wt., 15 lbs. 2.29

Per box. 2.29

Iron Hooks 4 for 19c

86 E 337—Japanned. Length, 2 in. Ship. wt., 16 oz. 19c

Set of four 19c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

486 E 394—Ship. wt., about 4 lbs. 98c



Scrub Brushes

86 E 345—Palmto fiber. Face size, about 9x2 in. Square ends. Ship. wt., 14 oz. 20c

86 E 344—Palmto fiber. Face size, 10 1/2 x 2 1/2 in. Square ends. Ship. wt., 1 lb. 29c

Combination Mop and Scrub Brush

486 E 409—Wrings itself out easily by the turning of a crank. Complete with long handle, woven cotton mop and good grade scrub brush. Shipping weight, 5 lbs. 1.69

486 E 394—Ship. wt., about 4 lbs. 98c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

486 E 394—Ship. wt., about 4 lbs. 98c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

486 E 394—Ship. wt., about 4 lbs. 98c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

486 E 394—Ship. wt., about 4 lbs. 98c

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486 E 394—Ship. wt., about 4 lbs. 98c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

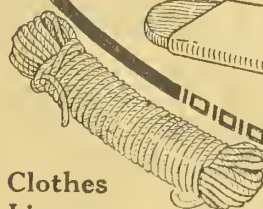
Cover and Pads for Your Ironing Board

89c

Ironing is easier and much more effective when a good pad and cover are used. We highly recommend the one offered here. It is well padded and can be used on any size ironing table or board on the market today. Put it on the board, turn the board over and lace up the pad just as you would a pair of shoes—takes but a minute. Costs no more than ordinary sheets and there isn't that bother of fastening it. Shipping weight, 1 1/2 pounds.

86 E 267—Pad to fit any size ironing table or board. Each. 89c

86 E 268—Extra Washable Covers to slip over and protect pad. Shipping weight, 8 ounces. Each. 48c



Clothes Line

86 E 435—Solid Braided Cotton Clothes Line. Well made strongly recommended. Diam. about 1/4 in. 50 and 100 ft. lengths. Ship. wt., of 50 ft., about 18 oz.

Price, per 50-ft. hank. 29c

86 E 427—1/2-inch Highest Grade Manila Clothes Line. Ship. wt., of 100 ft., about 2 1/2 lbs. 59c

Per 100-ft. 86 E 410—Samson Spot Sash Cord Clothes Line. There is no better line obtainable. Strong and durable. Ship. wt., of 100 ft., 2 1/2 lbs. \$1.69



Solid Wire Clothes Line

86 E 430—Solid Annealed Galvanized Wire Clothes Line. Preferred by a great many because of its smooth surface. Illustration shows full size. In coils of 100 ft. Ship. wt., 6 lbs. 55c

Per coil. 55c

Twisted Wire Clothes Line

86 E 431—Made of No. 18 gauge wire, twisted together to form a strong, flexible cable. Thoroughly galvanized. Illustration shows full width. In 100-ft. coils. Ship. wt., 4 lbs. 39c

Per coil. 39c

6 Doz. 52c

Spring Pins

86 E 308—U. S. Wooden Clothes Pins. Patent galvanized spring. Ship. wt., per gross, 4 lbs. 52c

Per gross. 98c

10 Doz. 42c

Wooden Clothes Pins

86 E 306—In packages containing 10 doz. Ship. wt., 2 1/2 lbs. 42c

486 E 305—Strong and smoothly finished. In boxes containing 60 doz. Ship. wt., 15 lbs. 2.29

Per box. 2.29

Iron Hooks 4 for 19c

86 E 337—Japanned. Length, 2 in. Ship. wt., 16 oz. 19c

Set of four 19c

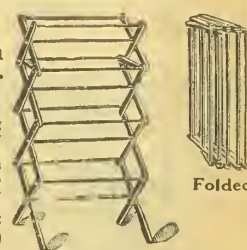
Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

486 E 394—Ship. wt., about 4 lbs. 98c

Detach a ble palmto fiber brush. Face size, 2 1/2 x 8 1/2 in. Also has detachable 12 oz mop head. Length of strings, about 12 in. Holder made of cast iron with 4-ft. hardwood handle.

Every Home Should Have a Clothes Dryer

186 E 264—Has 26 1/2 running feet of drying space, yet occupies only 31 1/2 x 15 in. floor space. Height, 54 inches. Folds into package, 32x23x6 in. Made of white basswood, smoothly finished. Ship. wt., 8 lbs. Not Mailable. \$1.79



Clothes Dryer

86 E 266—Has 8 wooden arms, each about 24 in. long. Convenient for drying small articles in the house. Arms drop out of the way when not in use. Shipping weight, 1 1/2 pounds. 32c

The Handy Betty Corner Hamper

Three cornered—built to fit in a corner. Made of good quality natural colored and silver gray splints, interwoven. Solid board bottom. Hinged cover. Height, 25 inches. Size at top, 15x18x21 1/2 inches. Shipping weight, about 15 pounds. 86 E 294—\$4.98

Not Mailable.



Sold Only in Sets of Two or More

Hand made of best rock elm. Reinforced at top. Large handles, securely attached. Strong smooth heavy wooden bottom. Sold only in sets of two or more, but selection can be made from the various sizes listed below.

Not Mailable.

Article Number

Size at Top About Inches

Height About Inches

Ship. Weight Lbs.

Price Each

186 E 269 26 1/2 x 18 1/2 11 1/2 4 \$.89

186 E 270 28 1/2 x 18 1/2 12 4 1.10

186 E 271 30 1/2 x 20 1/2 12 1/2 4 1.19

Stretches Curtains Properly Not Mailable.

Can be Adjusted to All Size Curtains

186 E 251 \$3.15

Climax Folding Curtain Stretchers

186 E 213—Made of selected clear basswood. Width, 1 1/2 in. Extends to 5x10 feet. Frame and center brace have built-in measuring rule. Strongly reinforced in center, making it very rigid. Can be adjusted to all size curtains. Pins adjust to any size scissor loops and are rust-proof. Made of brass, nickel-plated. Folds completely with pins protected. Ship. wt., 9 lbs. \$2.95

186 E 251—Similar to above but width of frame is only 1 1/2 in. Size, 6x12 feet. Adjustable brass nickel-plated pins. Ship. wt., 10 lbs. \$3.15

186 E 214—Folding Curtain Stretcher. Size, 5x10 ft. Made of 1 1/2 in. basswood with stationary pins, 2 in. apart. Folds completely. Ship. wt., 9 lbs. \$1.98

186 E 251—Similar to above but width of frame is only 1 1/2 in. Size, 6x12 feet. Adjustable brass nickel-plated pins. Ship. wt., 10 lbs. \$3.15

186 E 214—Folding Curtain Stretcher. Size, 5x10 ft. Made of 1 1/2 in. basswood with stationary pins, 2 in. apart. Folds completely. Ship. wt., 9 lbs. \$1.98

186 E 251—Similar to above but width of frame is only 1 1/2 in. Size, 6x12 feet. Adjustable brass nickel-plated pins. Ship. wt., 10 lbs. \$3.15

186 E 214—Folding Curtain Stretcher. Size, 5x10 ft. Made of 1 1/2 in. basswood with stationary pins, 2 in. apart. Folds completely. Ship. wt., 9 lbs. \$1.98

186 E 251—Similar to above but width of frame is only 1 1/2 in. Size, 6x12 feet. Adjustable brass nickel-plated pins. Ship. wt., 10 lbs. \$3.15

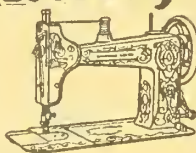
186 E 214—Folding Curtain Stretcher. Size, 5x10 ft. Made of 1 1/2 in. basswood with stationary pins, 2 in. apart. Folds completely. Ship. wt., 9 lbs. \$1.98

186 E 251—Similar to above but width of frame is only 1 1/2 in. Size, 6x12 feet. Adjustable brass nickel-plated pins. Ship. wt., 10 lbs. \$3.15

Four Good Sewing Heads to Choose from

Damascus Grand Rotary

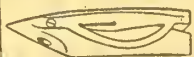
OUR Damascus Grand Rotary is the highest type of sewing head that we know of. It has a continuous, smooth, circular movement with absolutely no vibration. On account of its rotary action, which entirely does away with lost motion, it is geared to sew one-third faster than the shuttle type of sewing machine. Because of this, it produces more work in a given time than any other type of sewing machine. See pages 703 to 705.



The Rotary Shaft Revolves Continuously in One Direction.
No Lost Motion!

Damascus (A) Vibrator

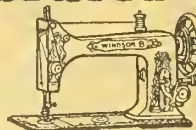
THE Damascus A Vibrator has all the good features of the Rotary model except that the vibrating shuttle is used instead of the Rotary bobbin. As we previously stated, the Rotary is unquestionably the easiest running type of sewing machine. However, those desiring a vibrating type will find the Damascus A Vibrating Shuttle Model the best of its type that money can buy. See Pages 706 and 707.



The Shuttle (Self Threading)

The Windsor (B) Vibrator

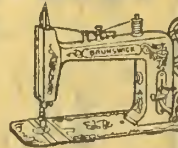
OUR Windsor B Vibrating Shuttle Machine is strong and simply constructed. It is much the same in general excellence as the Damascus A Vibrating Shuttle Model, except that it lacks one or two features such as the automatic tension. Its disc type tension is much superior to those used on many machines sold elsewhere today. It has the automatic tension release. Highly recommended for general family sewing. See Pages 708 and 709.



The Shuttle (Self Threading)

The Brunswick (C) Vibrator

THOUGH lighter than our other types of vibrating shuttle machines, it is well built and will give good service for a long term of years. Our Brunswick C, we believe, represents the biggest value obtainable in a good low priced sewing machine. For full detailed description of this top tension style of sewing machine, see page 710.



The vibrating shuttle travels back and forth in this manner.

The Damascus GRAND ROTARY

ON the Damascus Grand Rotary you secure a perfect stitch without fussing with the tension. You do not have to adjust it for every grade of goods. You waste no time regulating it, do not destroy goods experimenting and escape all other tension troubles. The patented automatic tension always insures a perfect stitch. It automatically adjusts itself, requiring no attention whatever. You can't realize what a big saving in material, time and temper this is until you try it.

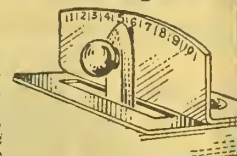
Our Automatic Tension



TO adjust the length of stitch, you just push the little lever shown in illustration. There it stays—no danger of it becoming loose in the middle of your sewing and spoiling the stitch. There is no thumb screw to fuss with.

The Stitch Regulator

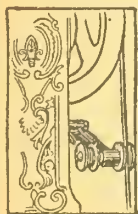
Automatic Take-up does not depend upon springs. The presser bar works perfectly and the force feed is always positive.



Sews 1/3 Faster than Ordinary Machines

IN the Damascus Grand Rotary we have a machine that has given us the reputation of being the world's largest single distributors of rotary sewing machines. This is because it is the highest type of machine that can be made. It doesn't clog or break thread and it will do anything that any sewing machine can do, regardless of price or make. Set your own pace—the Damascus Rotary will travel at lightning speed or take a leisurely stride. And it always makes an unbroken line of perfect stitches.

The Automatic Bobbin Winder



THE automatic bobbin winder automatically stops winding when the bobbin is filled with thread—there's no danger of breaking the thread. It is fitted with two spool pins, so there is no need to unthread the machine to wind the bobbin. The opening in the bobbin case is large enough to insert your hand to remove or replace the bobbin.

On the Damascus there is nothing to lift or turn when you want to oil it, as the holes for oiling are easily reached from above.

The Grand Rotary Principle

THE rotary principle makes possible the silent, smooth and swift qualities of the Damascus Grand Rotary. It makes the Double lock stitch. As the needle passes through the cloth, a small, sharp pointed hook on the end of a revolving shaft catches the upper thread, carrying it around the bobbin. Just one small revolving shaft takes the place of the noisy shuttle, shuttle carrier and shuttle lever of vibrating machines. That's why it runs so smoothly and silently. It is geared higher and runs one-third faster than shuttle machines.



Rotary Hook



Easy to Insert

A Few More Grand Rotary Features

The Sewing Head. The head is high and allows plenty of room for handling bulky materials. It is gracefully shaped and has a baked on black lustre enamel that cannot 'peel' off. The bright parts are all attractively nickel-plated. Ornamentation is gold and colors.

The Automatic Lift instantly raises or lowers the sewing head.

Easy Threading. With the exception of the needle, the entire machine is self-threading. You can almost thread it with your eyes shut.

Other interesting reasons why you will prefer the Damascus Grand Rotary appear on Pages 703, 704 and 705. Read them.

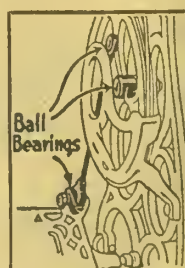
Ball Bearing Stand

THE quietness of this machine proclaims another superiority—its smooth-running qualities.

To match the easy-running Rotary Head, a stand has been constructed completely equipped with high-grade ball bearings. Proper arrangement of the stand enables the user to enjoy a restful sitting position at all times.

The Flywheel is extra large and the dress guard prevents it from becoming unbelted when the sewing head is let down.

Stand is of finest quality gray iron, well braced. Black enameled. Easy-rolling casters.



Ball Bearings

"The Sewing Machine with the Perfect Stitch"

20 Year Guarantee

"AFTER 30 years of service my machine is still in perfect running condition."—So one of the many letters from satisfied customers reads. Ward's Machines Continually Outlive Their Guarantees—that is why we recommend them so highly to you today.

A written guarantee accompanies each machine as it leaves our immense factories. Every machine is accurately adjusted, carefully inspected and thoroughly tested with both silk and cotton threads. Should any defects develop in either material or workmanship during a period of twenty years, we will put the machine in perfect running order without cost to the owner and pay the freight charges both ways.

Our Guarantee

90 Day Trial Offer

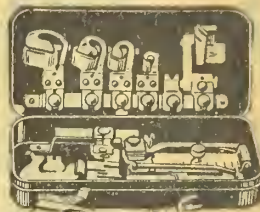
THERE is only one way to select a sewing machine and that is to actually operate the machine yourself. Order any sewing machine from this catalog that appears to fill your requirements, sending us the full purchase price. Then, after 90 days' trial, return it unless you are fully satisfied with the machine and with the saving you have made by purchasing from us. We will refund the original purchase price and the freight charges as well.

Extra Parts are Always Obtainable

There are practically no parts on our sewing machines that are likely to break or wear out. Accidents sometimes occur and, unless you are able to secure the necessary parts, your machine is of little or no use to you. Those purchasing their machines here do so with the positive assurance that extra parts can always be promptly obtained. Every part of the machine is illustrated and described in our instruction book so it will be an easy matter to order any part needed.

Greist Attachments Free

WE send this machine to you equipped to sew everything that home sewing or expert dress-making may demand of it. Beautiful ruffles, tucks, etc. are completed in a few moments' time with the aid of our Greist Attachments, a set of which is included free with each machine. They are of the highest grade steel, nickel plated, packed in a velvet-lined metal case. Set contains: Ruffler, tucker, braider, 5 hemmers, special foot, under-braider and shirring slide.



The Damascus Grand Rotary Supplies

With each Damascus Grand Rotary machine we furnish the following supplies: 12 needles, 6 bobbins, thread cutter, screw driver, gauge, oil can (filled) and illustrated instruction book.



The Damascus GRAND ROTARY

Ward's Furnish their Customers with Complete Sewing Service. See Page 711

ROTARIES are the smoothest running machines to be had—this fact is recognized by all good dressmakers.

Because of its easy-running qualities the Damascus Grand Rotary gives the same satisfactory service year after year. There are no jars to loosen and unbalance its accurately adjusted mechanism. Sews $\frac{1}{3}$ faster than ordinary machines, when you so desire. Always makes an unbroken line of perfect stitches.

\$46⁸⁵

WHILE the user assumes a restful, natural position before our machine, this alone can never give perfect sewing comfort. Every moving part of the sewing machine, from the needle bar down to the ball bearing drive wheel, must work in perfect harmony. Then only can a sewing machine give perfect satisfaction! That is why only skilled craftsmen, experts in their particular lines, are permitted to assemble the Damascus Grand Rotary.

The refinement of design and the rich finish of this model win the admiration of those who appreciate good furniture. Of choicest built-up quarter-sawn oak. Treated with a handsome mirror finish golden oak color. The six drawers are fitted with wooden pulls.

Send us your order in the usual manner—Try the Damascus Grand Rotary in your own home for 90 days. If, after that time, you decide that it does not meet your requirements, send it back. Your money and freight charges will cheerfully be refunded. Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer. Shipping weight, 125 pounds.

286 E 62—Price.....\$46.85



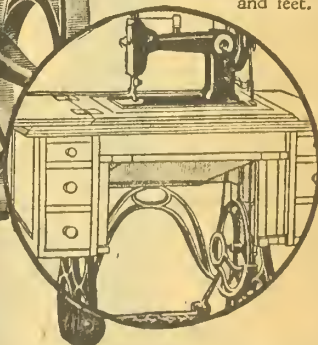
Automatic Lift
The quickness and ease with which the sewing head can be raised or lowered is another feature you will appreciate. Simply raise the cover, and the head and drop-front swing up into position. When the sewing is done swing the cover back again and the head disappears into the walls of the cabinet. Very simple. Protects it from dust and dirt.



Measuring Rule

Directly in front of the operator a measuring rule is imprinted. A coat of varnish over this rule protects it from all possibility of being marred. You will appreciate this feature especially when there is hemming and ruffling to do.

The large illustration shows the drop-front down, but in actual use it raises (see small illustration below) giving the operator plenty of room for her knees and feet.



Sews $\frac{1}{3}$ Faster Than Ordinary Sewing Machines

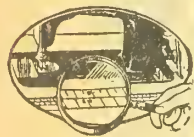
Put an end to washday backaches—see pages 695 to 698

★ Montgomery Ward & Co. Chicago

The Damascus Grand Rotary

Our 90 Day Trial Offer

BUY any sewing machine from this catalog that appears to fill your requirements. Then, after 90 Days' Trial return it unless you are fully satisfied with the machine and with the saving you have made by purchasing from us. We will refund the original purchase price and the freight charges, as well.



Measuring Rule

Directly in front of the operator a measuring rule is imprinted. A coat of varnish over this rule protects it from all possibility of being marred. You will appreciate this feature especially when there is hemming and ruffling to do.

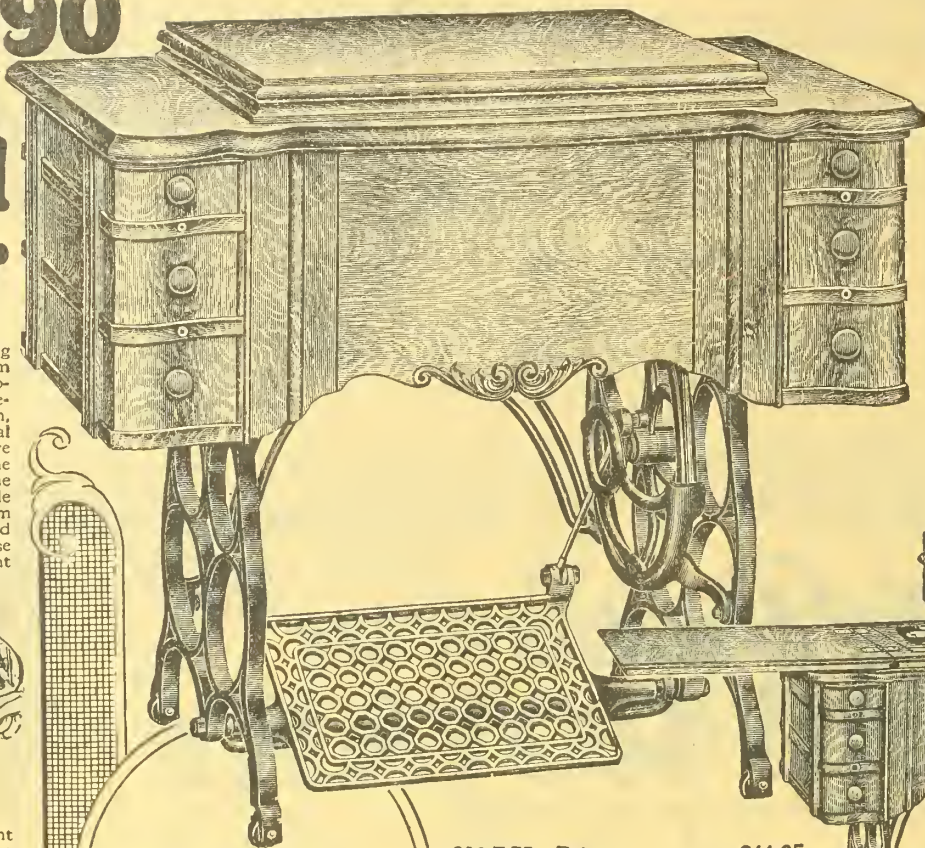


Automatic Lifting Device

The quickness and ease with which the sewing head can be raised or lowered is another feature you will appreciate. Simply raise the cover, and the head and drop-front swing up into position. When the sewing is done swing the cover back again and the head disappears into the walls of the cabinet. Very simple. Protects it from dust and dirt.

Extra Parts are Always Easy to Obtain from Ward's

There are practically no parts on our sewing machines that are likely to break or wear out, yet accidents sometimes occur and, unless you are able to secure the necessary parts, your machine is of little or no use to you. Those purchasing their machines here do so with the positive assurance that extra parts can always be promptly obtained.



\$44.85

286 E 75—Price.....\$44.85

Shipping weight, 125 pounds.

Shipped promptly from Stock at Chicago, from Warehouse at Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.

For People Who Recognize and Demand Highest Quality at Fair Price

AFTER all, one of the main reasons that is leading you to buy a sewing machine is your desire to SAVE Time and Money. That is exactly why we are advising you to give the Damascus Grand Rotary our consideration! It sews one-third faster than shuttles and is superior to many rotary machines on the market today. While it does not cost nearly as much as many sewing machines sold elsewhere, we invite you to test the Damascus Grand Rotary alongside of any machine on the market. Try it 90 days. At the end of that time if you are not convinced that it is the equal of any sewing machine on the market, regardless of price, return it at our expense and the original purchase price will immediately be refunded.

Quarter Sawn Oak Six Drawer Machine

The splendid cabinet on this model is of Genuine Quarter Sawn Oak, beautifully finished. Has six oak-handled drawers, large and roomy.

A convenient 18-inch measure is printed on the inside of the sewing table. Simply raise the cover and the head and drop-front swing up into position. When the sewing is done, swing the cover back again and the head disappears into the walls of the cabinet.

Shipped complete with a set of Greist Attachments, supplies and illustrated instruction book. 20-year guarantee and 90-day trial offer explained in detail on page 703.



Damascus Grand Rotary Hand Rubbed Heavy Quarter Sawn Oak

THE modern demand for simplicity led us to design this attractive model. Today it is a big favorite with our customers and why shouldn't it be, considering the low price asked?

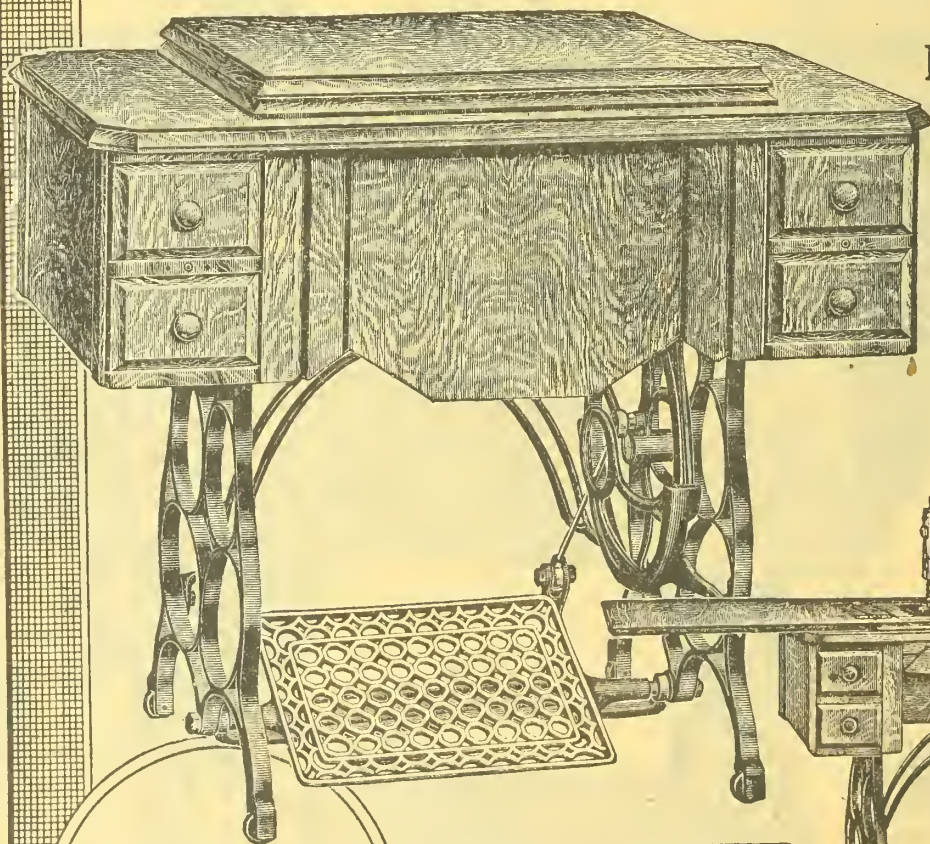
Built substantially of well-seasoned beautifully figured quarter-sawn oak. The table and drawer frames are of quartered oak. The top lid, side panels and drop-front apron are built-up stock. The four deep drawers are fitted with wooden pulls. Large and roomy. As fine a cabinet you have ever seen.

Particular care has been taken in the construction of that which is invisible to the eye—the mechanism of the sewing head which you will find to be smooth-running and silent. It is the most popular rotary in use today. For descriptions and illustrations showing the many advantages of the Damascus Grand Rotary, see page 703.

With this machine we send a set of Genuine Greist Attachments. We also furnish a full set of tools. A convenient 18-inch tape measure is printed on the sewing table.

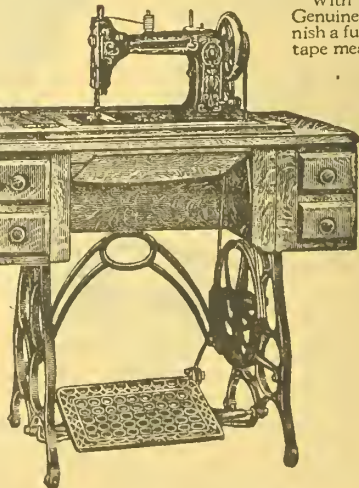
Shipping weight, 125 pounds.

Shipped promptly from Stock at Chicago, from Warehouse at Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.



\$43.95

A \$45.00 Dressmaking Course For \$13.50. Read Full Details of Our Special Offer, on Page 711



286 E 60—Price.....\$43.95

We ask that you try this machine for three months. Should it fail to do extra work and prove itself unworthy you expect it to be, send it back at our expense and we will refund your money.

The Machine with the Perfect Stitch

Positively None Better Made!

Damascus Grand Rotary Cabinet Model—Choicest Grade Quarter Sawed Oak

**Guaranteed
for 20
Years**

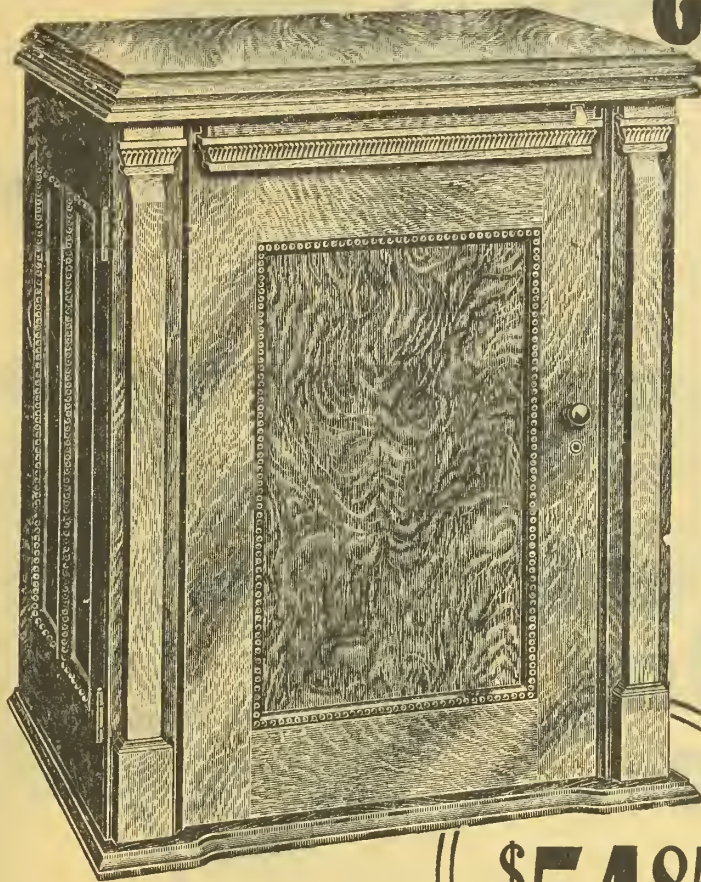
YOU cannot buy a parlor cabinet sewing machine in this style, of a quality, workmanship or finish superior to this. The cabinet is constructed throughout of the choicest grade of cross-grained, matched, quarter-sawed oak, beautifully finished. The pockets (for accessories, etc.) are constructed of solid stock. The balance of the woodwork is of built-up stock.

The cabinet is fitted with a single full-width door, with sunken center panel, ornamented with a neat moulding. Sides are trimmed with heavy square-shaped pillars. Inside of door is fitted with large, quartered oak box, with three pockets and one drawer for holding attachments, patterns, etc.

With each machine we send a set of the best nickel-plated genuine Greist Attachments for fancy sewing. We also furnish a full set of 18s. A convenient 18-inch tape measure is printed on the sewing plate. Has the automatic lifting device.

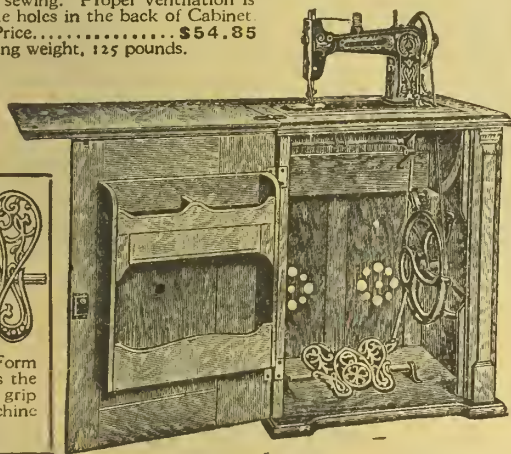
The Damascus Grand Rotary Head, which is used on this cabinet, is fully described on page 703.

Ample space is provided for the knees of the operator while sewing. Proper ventilation is provided by the holes in the back of Cabinet. **E 63—Price.....\$54.85**
Shipping weight, 125 pounds.



\$54.85

Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.



The Foot-Form readily gives the operator a secure grip when the machine is in motion.

FOR over 30 years our Sewing Machines have been giving satisfaction in the hands of our customers. Every Damascus is accurately adjusted, carefully inspected and thoroughly tested with both silk and cotton threads. Just before your machine leaves our factory a certificate of guarantee is enclosed. Should any defects develop in either material or workmanship in a period of twenty years, we will put it in perfect running order without cost to the owner and pay the freight charges both ways.



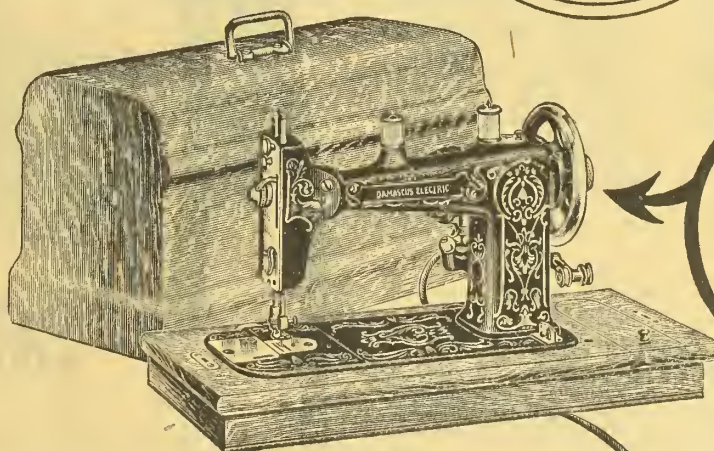
See page 703 for complete list of supplies and accessories included with each Damascus Grand Rotary Sewing Machine.

Electric Grand Rotary

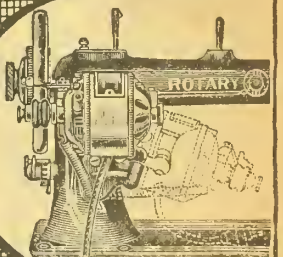
THE easiest way of sewing invented! Much smoother and quicker in operation than the ordinary electric sewing machines, as it is equipped with the Damascus Grand Rotary Sewing Head. You simply attach the plug to any electric light socket, then step on the pedal to start it—press a bit harder to sew faster. All you do is to watch and adjust the sewing. A big labor saver. Requires no exertion or strength. There is no strain—no cramped position. It makes sewing easy, comfortable and pleasant—and cheap, too. It runs noiselessly and smoothly. It is fine for the home and a boon for dressmakers. It can be used wherever electric current is available.

And consider its great convenience! Think how handy it is! Can be placed on any table or desk in any room of the house. It can be taken on traveling trunks or is easily carried (see handle) from one room or one house to another. Can be placed on a pantry shelf or any out-of-the-way corner where children can't get at it.

Comes complete with all necessary supplies including a set of nickel-plated genuine Greist Attachments in a neat velvet-lined metal case. A book of instructions explains their uses. Length of case, 14 inches; width, 10 inches; height, 12½ inches. Weighs only 35 pounds. Comes with 8-foot cord. Shipping weight, 60 pounds.



**Nickel-Plated
Electric Motor**



Equipped with a high-grade motor that swings under sewing arm when not in use.

Send No Money Now

All you need do now is to fill out the coupon on page 696. Should you decide to keep it, send us \$5.00 a month until the machine is paid for.

286E96—Damascus Grand Rotary Electric Machine with 110-volt Alternating Current Motor. Time Payment Price.....\$56.95

286E951—Damascus Grand Rotary Electric Sewing Machine with 32-volt Direct Current Motor. Time Payment Price.....\$58.95

Shipped promptly from Factory in Northern Illinois.

\$6.00 a month soon pays for the Damascus Grand Rotary Electric. Use Special Time Payment Order Blank on page 696.



**Easily
Carried**

Case is Made of Genuine Oak with Golden Oak Finish



**This Electric
Sewing Machine
is Sold on the
Easy
Payment
Plan**



Sews 3 Faster Than Ordinary Machines

Royal aluminum ware gains favor wherever used. See pages 686-687

Montgomery Ward & Co. Chicago

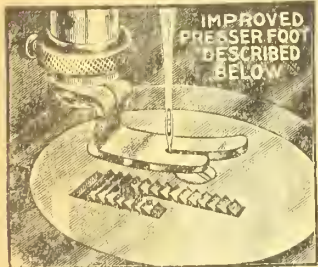
705

Save Money-Buy Your

Guaranteed 20 Years

OUR Damascus A sewing machines are accurately adjusted, carefully inspected and thoroughly tested with both silk and cotton threads. Just before a machine leaves our factories a certificate of guarantee is enclosed. Should any defects develop in either material or workmanship in a period of twenty years, we will remedy them and put the machine in perfect running order without cost to the owner and pay the freight charges both ways.

Damascus A Vibrating Shuttle



IMPROVED PRESSER FOOT DESCRIBED BELOW

INSPECT the sewing done by the Damascus A Vibrating Machine. You will find that its stitches are perfect regardless of the thickness of the thread used. The automatic Face Plate Tension is responsible for that. Naturally, this exclusive feature tends to make sewing a great deal easier. No time is wasted regulating it, no materials are destroyed in needless experimenting and you escape all the other tension troubles.

Full Size Sewing Arm

The full sized extra high sewing arm is neat and symmetrical. It provides ample working space underneath for convenient handling of material.

All working parts are made of highest grade steel, carefully hardened in oil and nickel-plated to prevent rusting. Bearings are carefully adjusted and properly tempered to minimize friction, and assure smooth, easy running.

The self-setting needle is short and sharp pointed. It will not bend or break easily.

You can feed over the thickest seams with ease and without puckering or marring the finest silk or chiffon, because of the improved presser foot (see illustration above). Both prongs extend an equal distance from the needle, as does the roller bearing feed.

The Shuttle is large size, cylindrical in shape and made of the finest nickel-plated steel. It makes the popular lock stitch, formed from double threads. The upper thread feeds from the needle and the lower one from the bobbin enclosed in the shuttle.

Makes Home Sewing Easy

The Stitch-Regulator, which controls the length of the stitch, is operated by a thumb screw sliding in the bed of the machine, near the base of the arm. It is provided with an indicator showing the length of stitch being made.

The Automatic Bobbin Winder, with cam-driven guide, always winds the bobbin evenly.

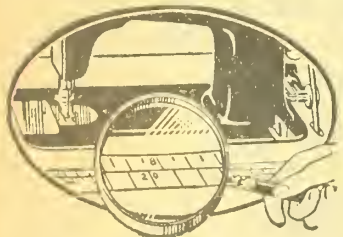
The Ball Bearing Stand is strongly built, very attractive; it is easy to work and quiet in operation. Made of highest quality gray iron, well braced. Finished in black enamel. Fitted with easy-rolling casters.

A belt-retaining dress guard is also provided, which prevents the machine from becoming unbelted when it is closed.

The Measuring Rule

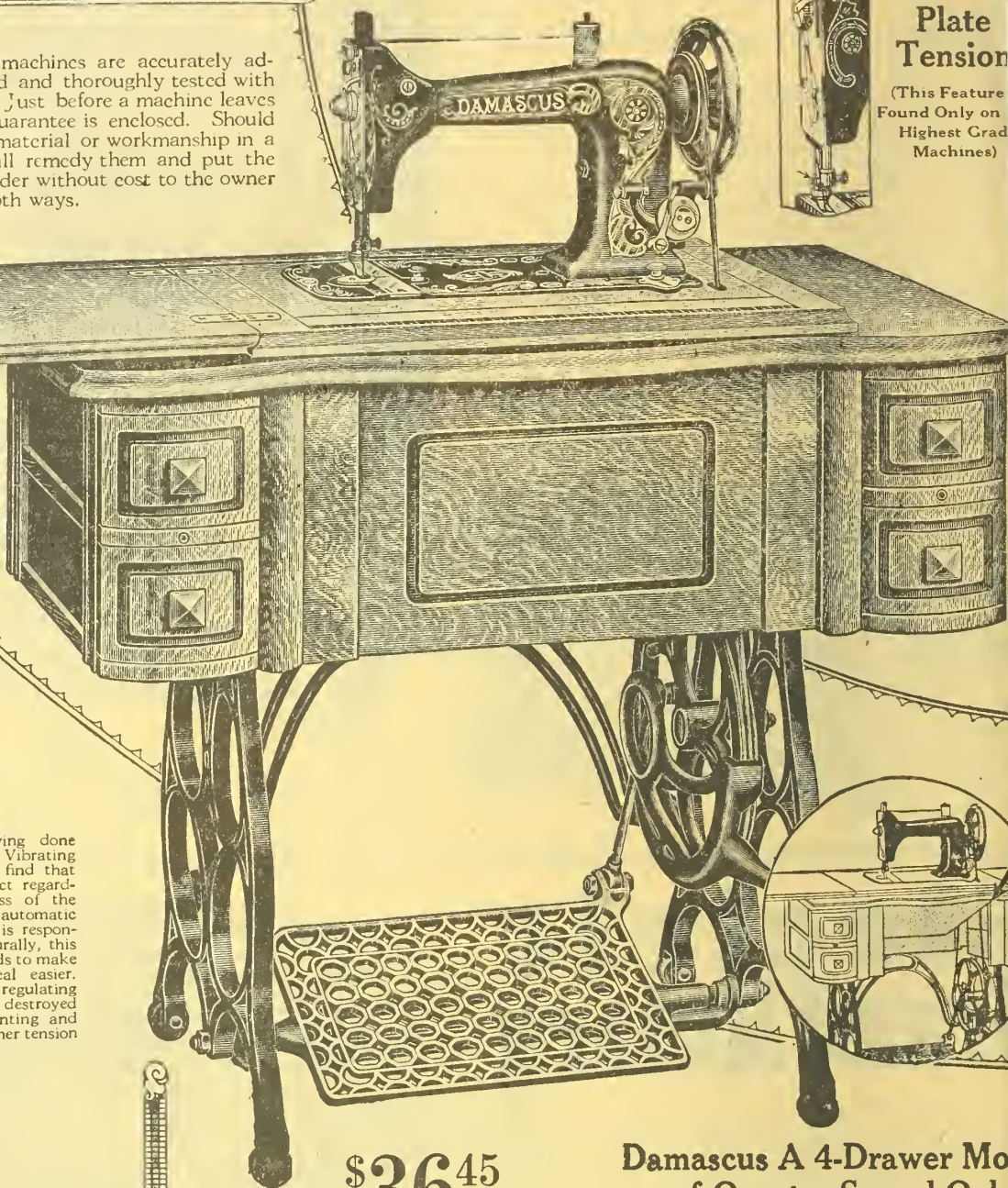
Directly in front of the operator a measuring rule is imprinted. A coat of varnish over this rule protects it from all possibility of being marred. You will appreciate this feature especially when there is hemming and ruffling to do.

You cannot buy a better constructed or more durable vibrating shuttle type of sewing machine anywhere, no matter what you pay. With the exception of the Damascus Grand Rotary, it is the easiest running machine that we know of. Every part is tested and gauged and fits perfectly.



Face Plate Tension

(This Feature Found Only on Highest Grade Machines)



\$36⁴⁵

Damascus A 4-Drawer Model of Quarter Sawed Oak A Great Money Saver!

A PLAIN, refined design of beautifully figured quarter-sawed oak, true with a hand-rubbed piano finish, in golden oak color. The sides and top are of plain and quartered oak and the rest is of full quarter-sawed oak. You will choose this one because it is modern and appropriate for the most elaborate home. The illustration shows the drop front down, but in actual use it raises, giving operator plenty of room for her knees and feet.

The four large roomy drawers are fitted with artistic wooden pulls, and simple design decorates the fronts of the drawers and drop front, all of which adds materially to the pleasing and harmonious appearance of this cabinet. Has automatic lift. Guaranteed for 20 years. See details of our 90-day offer on top of page 707.

286 E 65—Price. \$3

Shipping weight, about 120 pounds.

Shipped promptly from Stock at Chicago from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois according to location of customer.



Damascus A Greist Attachments and Accessories

In addition to the usual accessories, which include 12 needles, 6 bobbins, thread cutter, screw drive gauge, oil can (filled), and illustrated Instruction Book, we furnish with each Damascus A Sewing Machine a complete set of Greist Attachments, as follows: Ruffler, tucker, braider, 5 hemmers, special foot, under-braider, and shirring slide. Put up in polished black japanned metal box.

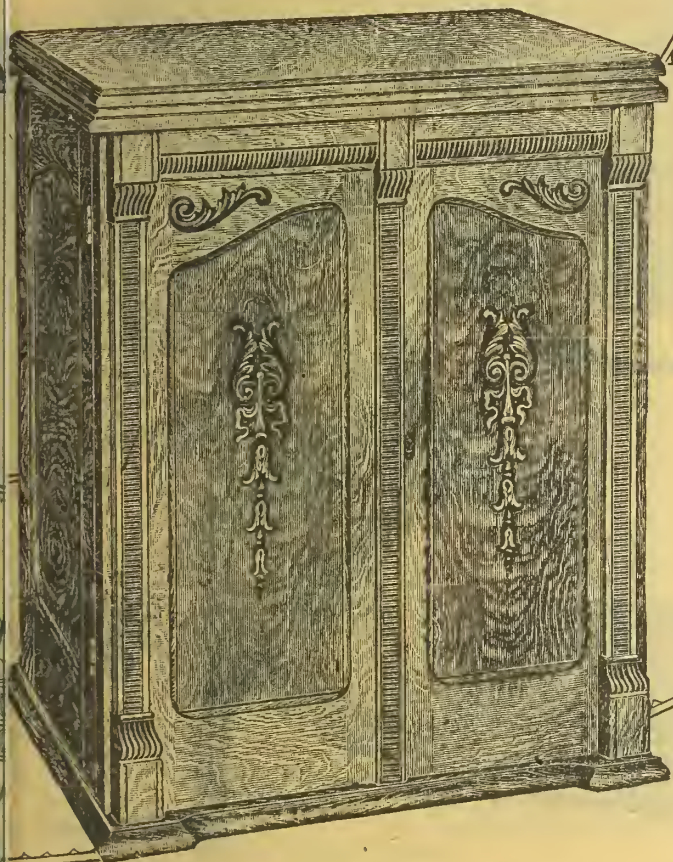
Sewing Machine at Ward's

Our 90 Day Trial Offer

\$45.00 Dressmaking Course for \$13.50
To Those Who Buy Sewing Machines From Us

WOMAN'S ability to save does not stop the day she is married!—Many successful men owe their positions in the world to their wives' prudent economy. We now offer the means of broadening every woman's powers of saving economy in the home—a delightful dressmaking course just been prepared for our customers that reduces the average yearly clothing budget almost one-half. If you buy it with a sewing machine, it costs \$13.50, otherwise it costs \$45.00—and it's cheap either price. For full details see page 711.

ORDER any sewing machine from this catalog, in the usual manner that appears to fill your requirements, sending us the full purchase price. Then, after 90 Days' Trial return it unless you are fully satisfied with the machine and with the saving you have made by purchasing from us. We will refund the original purchase price and the freight charges, as well.



The Damascus A Cabinet Model
Highly Polished Quarter Sawed Oak

IDEAL for the room frequented by visitors, as it does not leave in view anything suggesting that it contains a mechanical device. It harmonizes with the finest furniture in your home. Its design and finish are beautiful. It has two doors. The door panels, sides and top lid are made of built-up oak. The remainder of the woodwork is of solid quarter-sawed oak. Handsomely designed, with embossings. Finished in a rich, dark golden oak, rubbed piano finish, top lid being particularly highly polished.

On the inside of each door is a pocket for holding attachments and accessories. The top and back of cabinet are of a panel design. The drive wheel runs on improved noiseless ball bearings. The castings are securely anchored to the woodwork and will not become shaky. There is practically no vibration while the machine is at work.

Equipped with the handy automatic lifting device as shown in small cut at right-hand top of this page. Has an 18-inch tape measure on sewing table. Furnished with the usual accessories and a full set of highest grade nickel-plated Greist attachments.

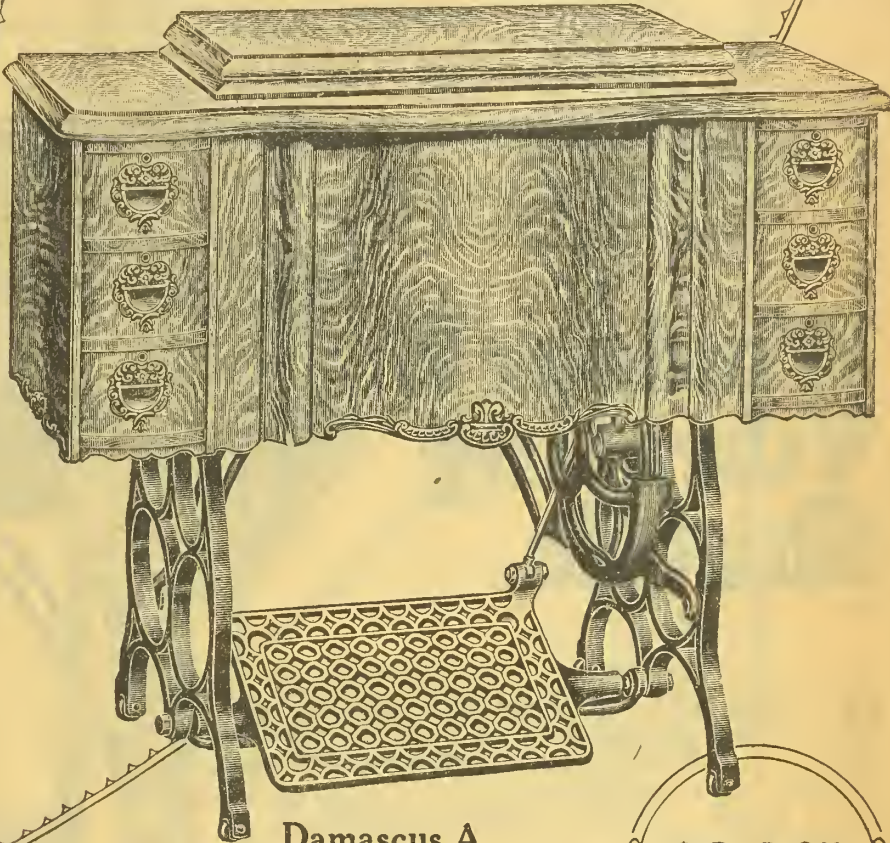
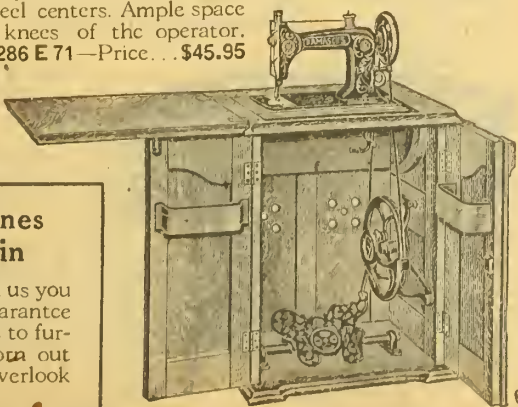
The Foot-Form treadle permits the feet to fit snugly on the treadle, adding to the ease of operation. The treadle is accurately balanced and hung on adjustable steel centers. Ample space is provided for the knees of the operator. Ship. wt., 150 lbs. 286 E 71—Price...\$45.95

Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.



Extra Parts for Our Machines Are Always Easy to Obtain

When you buy a sewing machine from us you do so with the positive assurance and guarantee on our part that we are able at all times to furnish any extra parts to replace those worn out or broken by various causes. Do not overlook this important feature.



Damascus A.
6-Drawer Model

\$39⁸⁵

DIFFERENT from other cabinets, as the ornamentations are extended in a graceful manner to the sides as well as on the drop-front and drawers. Thus, no matter which direction this machine faces, the onlooker is sure to see nothing but a beautifully designed surface of quarter-sawed oak. The six roomy drawers have wooden pulls incased by pleasing designs.

Such a fine cabinet is, indeed, appropriate for this machine as it houses the Damascus Vibrating head. No vibrating machine, regardless of the price, will do work excelling that done by our Damascus. Has the automatic tension which insures a perfect stitch always. You waste no time regulating it and no material is destroyed by faulty stitching. The stand is equipped with ball bearings, causing the treadle and pitman to operate smoothly and silently. To acquaint yourself with its many other advantages read the description of the sewing head on the opposite page.

Furnished with the usual accessories and supplies and a set of the highest grade nickel-plated Greist Attachments. An 18-inch measuring tape is printed on the sewing table.



GREIST ATTACHMENTS



286 E 129
Price...\$39.85
Ship. wt., 125 lbs.

Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.

Even Our Lower Priced

Guaranteed 20 Years

EVERY Windsor B is accurately adjusted, carefully inspected and thoroughly tested with both silk and cotton threads. Just before it leaves our immense factories a certificate of guarantee is enclosed. Should any defects develop in either material or workmanship in a period of twenty years, we will remedy them and put the machine in perfect running order without cost to the owner and pay the freight charges both ways.

Windsor B Vibrating Shuttle

WARD'S sewing machines have the head so arranged in relation to the stand and treadle that a most natural and comfortable sitting posture is enjoyed by the operator.

The Windsor B is equipped with the latest improved type of disc style tension. It is easily adjusted and has given universal satisfaction. The best known machines today are fitted with the disc tension.

The Windsor B also has an extra high sewing arm, insuring comfort and easy handling of bulky materials when sewing. The automatic Tension Release permits you to draw your sewing from under the presser-foot without breaking the threads or damaging the needle.

The Shuttle is of large size. Cylindrical in shape, made of the finest quality steel, nickel-plated. Fitted with an adjustable steel spring, for regulating the lower tension. It is easy-threading.

The Bobbin Winder is automatic in action and insures a perfectly wound bobbin at all times.

The Stitch Regulator, controlling the length of stitch, is operated by a thumb screw sliding in the base of the arm.

Advantages of Our Presser Bar

The Presser Bar is fitted with a cap-covered spring, and is quickly and easily adjusted to different thicknesses of materials. The Presser Foot extends on both sides of the needle. It holds the goods firmly in place. The Feed is positive in action, being operated and controlled by the main shaft. Cannot get out of order, as no springs are used.

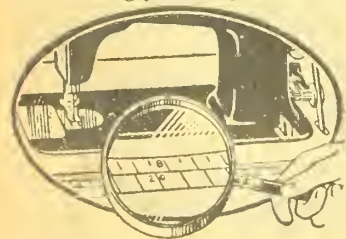
Improved Noiseless Ball Bearing Stand

The Stand is fitted with easy-rolling casters. The Drive Wheel is made extra heavy and is fitted with improved noiseless Ball Bearings, causing the machine to run easily. It is equipped with belt-retaining guard, which prevents the machine from becoming unbelted when it is closed.

The Take-up is positive, another worth-while feature. It has no springs to get out of order. It controls the thread perfectly on every kind of work, insuring even and perfect stitches.

The Needle Bar is round and made of highest grade steel, properly tempered. There are no springs to weaken or cause trouble.

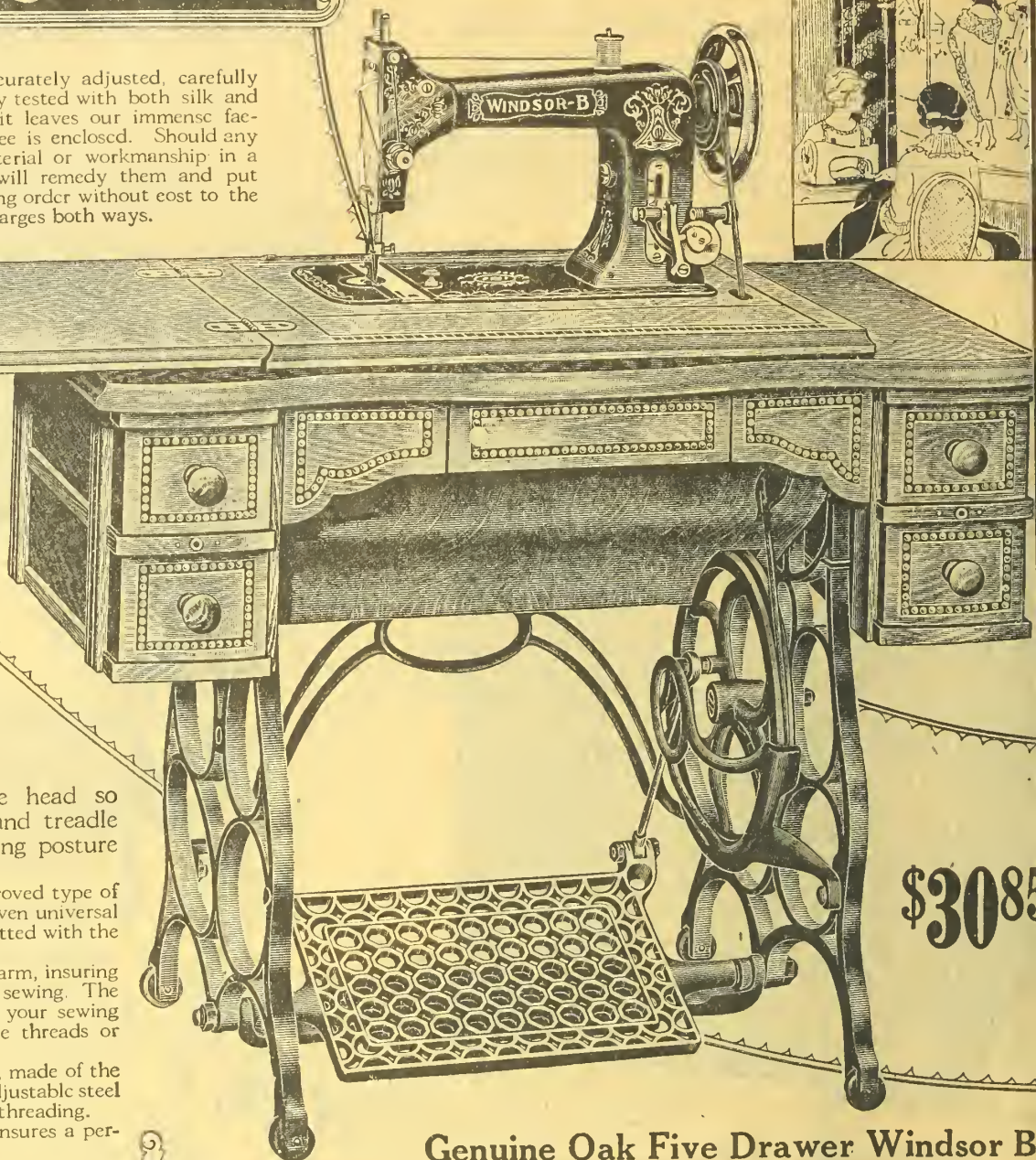
The Needles are self-setting. The shank is flattened on one side and fits snugly into a groove in the needle bar.



A convenient 18-inch tape measure is printed on the sewing table.

The rim of hand wheel, face plate and similar parts are heavily nickel-plated to prevent rust.

If you want a high-grade sewing machine at a low price, equipped with the most modern improvements, then get a Windsor B. It is a strictly high-grade, easy-running sewing machine.



\$30.85

Genuine Oak Five Drawer Windsor B

IT IS the sewing head that determines the life of any sewing machine. So confident are we of each Windsor B head, that a written 20-year guarantee of satisfaction accompanies each machine as it leaves the factory.

Considering the low price of the model shown above, no one need be without a truly high grade sewing machine. The woodwork on this model is handsomely designed, genuine oak, finished in a rich golden oak color. A beaded panel design is shown on the drawer fronts. The five drawers with their beaded panels and wooden pulls add to its artistic appearance. The drawer frames are substantially built, with the side pieces mortised in and secured to the sides of the legs with iron clamps. The folding top is made of heavy quarter-sawn oak veneer and does not warp.

Has secret drawer in the front of the machine. Forms a convenient hiding place for needles, etc. In this drawer special slots are provided for the extra bobbins which we include with each Windsor B.

With each machine we send a complete outfit—a set of the best nickel-plated genuine Greist attachments in a neat velvet-lined metal case. With these you can do most any kind of sewing. We also furnish a full set of tools, accessories and an instruction book.

Our liberal 90-day trial offer is explained on page 709.

286 E 73—Price.....\$30.85

Shipping weight, 110 pounds.



Shipped promptly from Stock at Chicago, from Warehouse at Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.

You Can Always Obtain Extra Parts For Our Sewing Machines

When you buy a sewing machine from us you do so with the positive assurance and guarantee on our part that we are able at all times to furnish any extra parts to replace those worn out or broken by various causes. Do not overlook this important feature.



GREIST ATTACHMENTS

Machines Last a Lifetime

A \$45.00 Dressmaking Course for Only

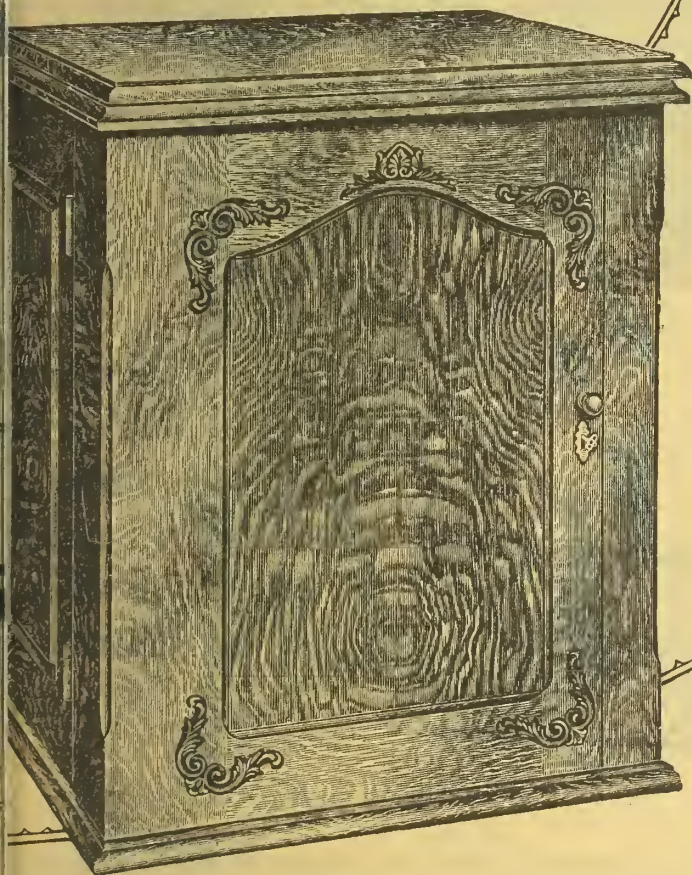
\$13.50

\$13.50 may save you \$1000 in three years! A wonder-new course in simplified dressmaking has made this possible. One woman, Mrs. Kieth by name, saved exactly \$385.55 in one year on clothes for her 14-year daughter and herself, after taking this course.

Instead of paying the usual price, which is \$45.00, you can secure complete course for \$13.50 by purchasing your sewing machine from us now. See full details of this liberal offer on page

Our 90 Day Trial Offer

THE high merits of our machines cannot be appreciated until you have actually operated one of them yourself. Order any sewing machine from this catalog that appears to fill your requirements, sending us the full purchase price. Then, after 90 Days' Trial return it unless you are fully satisfied with the machine and with the savings you have made by purchasing from us. We will refund the original purchase price and the freight charges, as well.



It's a Windsor B

\$44.45

An Elegant Piece of Furniture One Moment - a Sewing Machine the Next!

THE top lid, front and side panels are full quartered oak. Finished in an attractive golden oak color. The rest of the cabinet is solid stock. A quartered oak pocket for holding attachments, etc., is fitted to the inside of door. The Drive Wheel runs on improved noiseless ball bearings. The treadle is accurately balanced and mounted on adjustable steel centers. All castings are securely anchored to the woodwork and will not work loose. There is hardly any vibration while the machine is in operation. Plenty of space for the knees while sewing. For a low priced parlor cabinet sewing machine, this Windsor B Model is, indeed, an excellent one. It does splendid sewing. When not in use, it can be closed, making an attractive desk or phonograph stand.

The Foot Form Treadle on the cabinet machine illustrated to left permits the feet to fit snugly on the treadle; gives them a sure grip, adding to the ease of operation.



FOOT FORM TREADLE

Fitted with automatic lifting device. Has excellent Windsor B sewing head, which is described in detail on the opposite page. Guaranteed for 20 years, sold on 90 days' trial. For details of trial offer, see top of page.

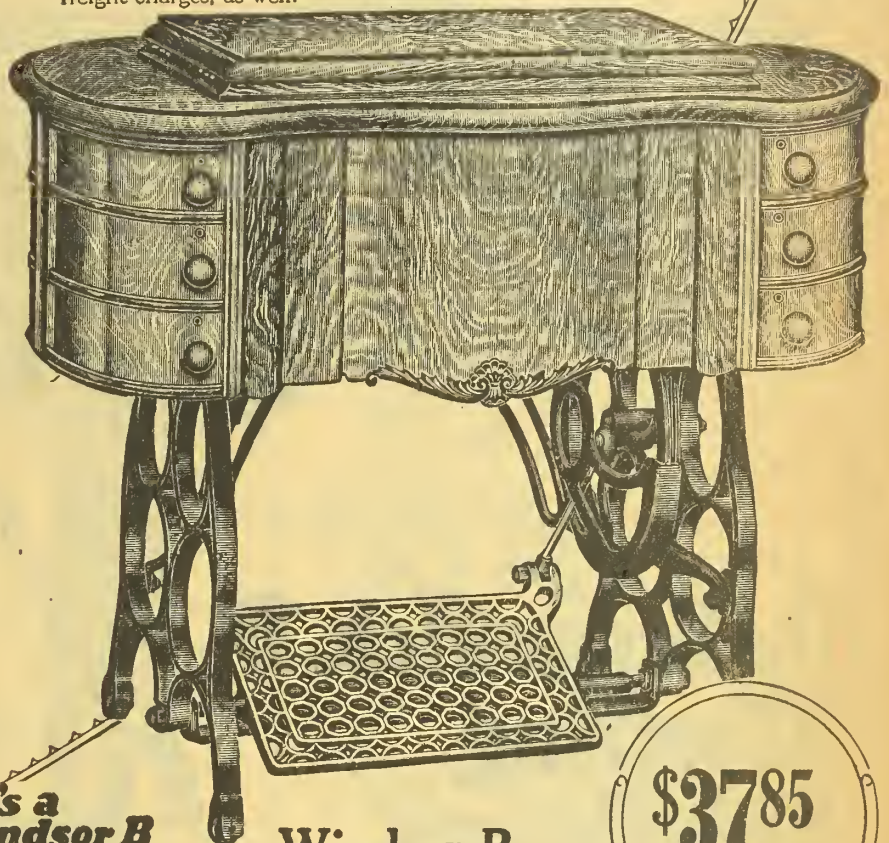
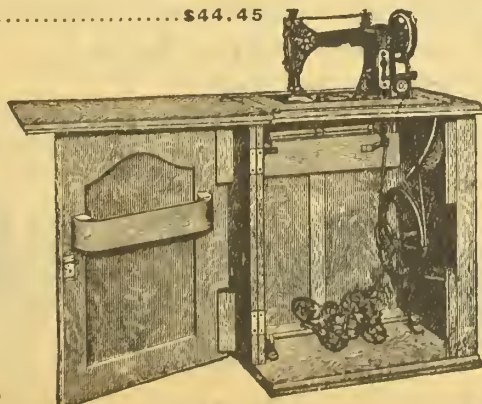
6 E 93—Price Complete.....\$44.45

Shipping weight, 140 pounds.

Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.

Windsor B Attachments and Supplies

In addition to the usual accessories, which include 12 needles, 6 bobbins, thread cutter, screw driver, gauge, oil can (filled), and illustrated Instruction Book, we furnish with each Windsor B Sewing Machine, a complete set of Greist Attachments, as follows: Ruffler, tucker, braider, 5 hemmers, special foot, under-braider, and shirring slide. Put up in a polished black japanned metal box.



Windsor B
Six Drawer Model

\$37.85

A MARTHA Washington style cabinet with gracefully curved drawers. Made of beautifully figured quarter-sawn oak, finished in a rich dark golden oak color. The table (with curved front), table frame, drawer frames and head frame are made of solid stock, veneered with quartered oak. Drop front is decorated with an embossed border. Solid brass pulls add to the attractiveness of the roomy drawers. With this Windsor B machine we send a set of the best nickel-plated Greist attachments in a neat velvet-lined metal case. A full set of tools is also furnished and a convenient 18-inch tape measure is printed on the sewing table. Equipped with the automatic lifting device which automatically places the head in position whenever the top lid is lifted. Has the latest improvements to be had in Windsor B machines. A good all around machine at a decidedly low price. Guaranteed for 20 years. Sold on 90 Days' Trial.

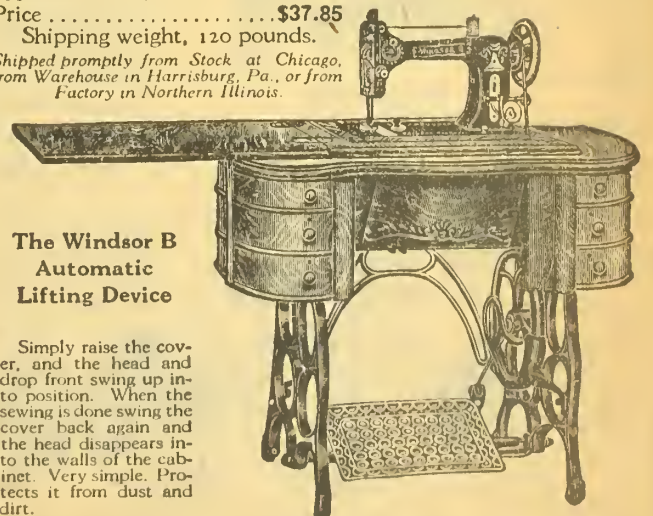


286 E 77—6-Drawer Model.

Price.....\$37.85

Shipping weight, 120 pounds.

Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois.



The Windsor B
Automatic
Lifting Device

Simply raise the cover, and the head and drop front swing up into position. When the sewing is done swing the cover back again and the head disappears into the walls of the cabinet. Very simple. Protects it from dust and dirt.

LOW PRICE and Good Construction has made this Machine Famous as one of WARD'S Big Values!

Our Lowest Priced Sewing Machine

OUR low-priced Brunswick meets every sewing machine requirement of the modern home. It is not equal in workmanship to our highest priced models, but will do excellent work and satisfy in every particular. It runs easily and makes the lock stitch, a stitch that is even and perfect. The working parts are of fine quality steel which, with proper care, will last a lifetime. The well proportioned Sewing Head is the high arm pattern, allowing easy handling of bulky materials. Rim of balance wheel, face plate, shuttle slides, presser bar, etc., are heavily nickel-plated.

\$29.50

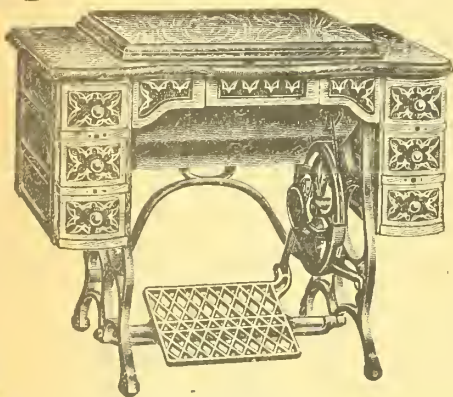
High Arm Sewing Head

THE Take-Up will control the thread perfectly. The Shuttle is self-threading, cylindrical in shape. Made of the highest grade steel. It is easily removed from the carrier for inserting the bobbin. The Shuttle Carrier holds the shuttle firmly in place by means of a spring lining and prevents it from rattling when the machine is in operation. The Tension, with convenient release, is placed on top of the sewing arm. The pressure on the thread can be regulated by a thumb screw. Has automatic Bobbin Winder and Stitch Regulator.

All Bearings are of hardened steel, properly fitted to minimize friction.

The Brunswick D Vibrating Shuttle Sewing Machine

THE Needle Bar is Round. Made of highest grade steel. Fits perfectly. Positive in action. No springs to cause trouble. The Needles are Self-Setting. The shank is flattened on one side. It fits snugly into a groove in the needle bar. The Presser Bar is Round. Fitted with a cap-covered spring. Quickly and easily adjustable to different thicknesses of materials. The Presser Foot extends on both sides of the needle. It holds the goods firmly in place. The Feed is positive in action. It is operated and controlled by the main shaft. No springs used.



7-Drawer Model

Ball Bearing Drive Wheel

The Drive Wheel is made extra heavy and fitted with improved noiseless Ball Bearings, causing the machine to run easily. Equipped with belt-retaining wheel or dress guard.

Genuine Oak—Five Drawer Brunswick Sewing Machine

THE woodwork is of an attractive design, the kind generally seen on much higher priced machines. It has a solid plain oak frame and the top lid is of heavy built-up quarter-sawn oak, handsomely finished in a dark golden oak color. Ornamented with tasteful designs, the drawers being fitted with neat wooden pulls. The table has a sloped front. Not equipped with the automatic lift, but has all other improvements. This popular has this model grown to be that we now offer it in two styles, with five or seven drawers, thus providing for the varying requirements of the women who do much sewing.

WITH each machine we send a Complete Outfit—a set of the best nickel-plated Genuine Greist Attachments in a neat metal case, and a full set of tools, and supplies. With these you can do almost every kind of sewing. A convenient 18-inch tape measure is printed on the sewing table. (See page 703 for details of Trial Offer.)

When you buy a sewing machine from us you do so with the positive assurance and guarantee on our part that we are able at all times to furnish any extra parts to replace those worn out or broken by various causes. Do not overlook this important feature.

Should any defects develop in either material or workmanship in a period of twenty years we will put

it in perfect running order without cost to the owner and pay the freight charges both ways.

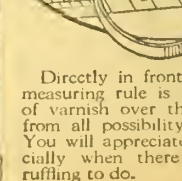
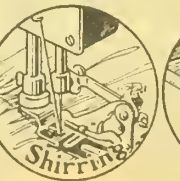
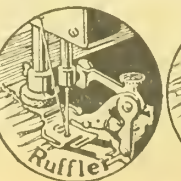
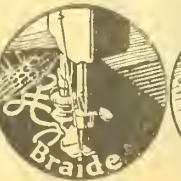
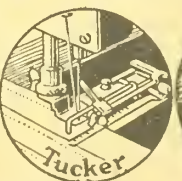
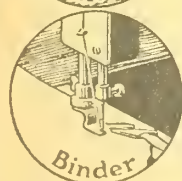
This model has a special drawer in the front of machine. Provision is made for 5 extra bobbins in slots. Also forms a convenient hiding place for needles, etc.

Shipping weight, 120 pounds.

286 E 83—7-Drawer Model. Price.....\$29.50
286 E 84—5-Drawer Model. Price.....27.50

Shipped promptly from Stock at Chicago, from Warehouse in Harrisburg, Pa., or from Factory in Northern Illinois, according to location of customer.

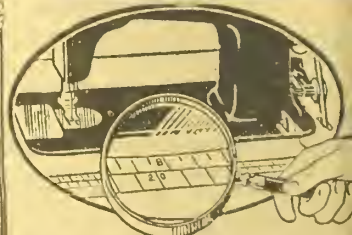
Some of the Things GREIST attachments Will Make for You



Greist Attachments and Full Set of Supplies Included

IN addition to the usual accessories, which include 12 needles, 6 bobbins, thread cutter, screw driver, gauge, oil can (filled), and illustrated Instruction Book, we furnish with each Windsor B Sewing

Machine, a complete set of Greist Attachments, as follows: Ruffler, tucker, braider, 5 hemmers, special foot, under-braider, and shirring slide. Put up in a polished black japanned metal box.



Directly in front of the operator a measuring rule is imprinted. A coat of varnish over this rule protects it from all possibility of being marred. You will appreciate this feature especially when there is hemming and ruffling to do.

The Secret of Good Dressmaking Revealed!

A New and Fascinating Way of Using Your Spare Time

WOMEN everywhere are amazed at the remarkable new method that has made home dressmaking so simple. The sewing machine does all the work. Ten yards of plaited frills can be made in ten minutes. Ten yards of the finest tucks and cross tucks can be made in ten minutes. Enough trimming for an elaborate dress can be made in less than a quarter of an hour.

Don't confuse this new method with any other method you know anything about. It is entirely different. It is as tremendous an improvement over the old way of making clothes as the vacuum cleaner is over the broom. Women and girls who have never sewed a stitch before, are able, in no time at all, to make smart, attractive, well-fitting clothes for themselves.

Save Money on Clothes for the Whole Family

THIS new method of sewing is solving the clothes problem in many families. Because it is such a simple way of making clothes, and because it is so rapid, even the busiest housewives are making dresses, blouses and underthings for themselves and for their children.

Think what it means to be able to make attractive clothes for yourself. In the first place, you will be able to have a new dress whenever you want it. You will be able to adapt styles to your own figure and personality. And, best of all, you will be able to have all the smartest, newest frocks and blouses at just a fraction of the ready-to-wear cost!

Of course, you can see why this would be. When you make your own clothes they cost you only what the material costs. By this new method of sewing, a few yards of poplin ordered from

this catalog can be transformed in an hour or two into a delightful new frock! No trouble, no fuss, no bother—just the simple matter of adjusting the sewing machine and guiding the material as it is rapidly transformed into tucks, frills, plaits and ruffles.

Amazing Results After a Few Lessons

Perhaps you do not realize that with your sewing machine there are various attachments that enable you to make the finest tucks, ruffles, plaits and even braided designs with lightning rapidity. What formerly took hours to do by hand, can now be done in a few minutes.

THIS new method of sewing is now being taught by mail to enthusiastic women all over the United States. Letters tell of wonderful results. After the second or third lesson some students make dainty collar and cuff sets, vests, camisoles. After a few more lessons they begin to think about making a blouse or dress. Before they even realize it they are making, at only a fraction of what it would cost ready-made, clothes that are an actual delight to wear.

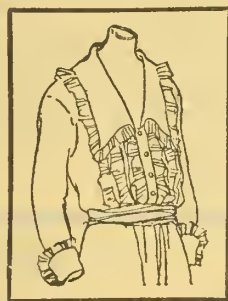


With Your Sewing Machine You Can—

- plait ten yards in ten minutes,
- sew on braid without basting,
- make perfect cross-tucks,
- make tucks on the finest materials,
- ruffle and shirr material without basting,
- apply a binding to an edge without basting,
- make ten different kinds of pretty trimmings.

A Modern Method for Modern Women

NO girl or woman who prides herself on being modern, progressive, is doing herself justice by failing to find out immediately all about this amazing new method of sewing. Think of the advantage of being able to transform an old blouse into a dainty creation in a short time! Think of being able to make a charming frock in a few hours before a party or dance!



The home that has no sewing machine is not perfectly equipped. The girl or woman who does not know how to use the sewing machine, how to make it work for her, transform materials into beautiful dresses, blouses and underthings, is deliberately sacrificing something that will be of value to her throughout her life.



IN addition to the remarkable time-and-money-saving features of the new method of sewing, you will be taught all essential hand stitches; textiles—their selection and use; how to know materials, and how to obtain harmony in line and color; how to plan the proper silhouette to accord with the latest fashion; how to obtain tailored effects; also the complete care and use of your sewing machine.

\$45 Modern Dressmaking Course for \$13.50

ANY sewing machine purchased from this catalog entitles the purchaser to this wonderful course of dressmaking at less than one-third of what it would otherwise cost—\$13.50.

Mail the coupon to us and we will send you full information regarding the Extension Course offered by the famous Institute of Modern Sewing. Our interesting free book, "Your Clothes and You," will be sent absolutely free merely on receipt of the coupon below, properly filled in.

If you already have a sewing machine, you can purchase this course from us for \$45.00.

Mail This Coupon NOW

Montgomery Ward and Company,
Chicago, Illinois.
Division 86.

Send me your FREE BOOK, "Your Clothes and You," giving full information regarding the modern method in home clothes-making.

Name.....

Address.....

Town.....State.....

Sewing Machine Supplies

Important In ordering parts for any of our machines it is absolutely necessary for us to have name and number of the machine. The latter will find on your guarantee, also underneath the front shuttle-slide of vibrating shuttle machines or on base of the sewing arm of our rotary models.

Instruction Book

In the instruction book which we furnish with all of our machines you will find complete lists of the various parts and their prices.

When ordering repair parts for machines other than ours, we require the name of the machine and sample of the broken parts.

Sewing Machine Needles

There is no such thing as a universal needle. If you do not use a needle made for your machine, the machine cannot do good sewing.

We carry needles of all makes. When ordering needles be sure to send a sample (pinned to a piece of cardboard or cloth, to prevent loss in transit), also give us the name and number of machine.

86E100—Sewing Machine Needles (all makes). Per dozen (postage 2c per dozen). **25c**

Accessories

Prices on the following accessories are for our machines only. We can furnish same for all makes of machines, but prices will vary.

- 86E101**—Bobbins (long cylinder shuttle). Per one half dozen..... **15c**
- 86E102**—Bobbins (round rotary shuttle). Four for..... **48c**
- 86E103**—Long Cylinder Shuttle. Each..... **75c**
- 86E105**—Ruffler. Each..... **70c**
- 86E107**—Needle Plate. Each..... **35c**
- 86E109**—Belts (all makes). Each..... **18c**
- 86E112**—Small Screw Driver. Each..... **5c**
- 86E110**—Spooler Rubbers (all makes). Each..... **5c**
- 86E104**—Rotary Bobbin Case. Each..... **50c**
- 86E106**—Tucker. Each..... **60c**
- 86E108**—Bobbin Winder. Each..... **\$1.80**
- 86E111**—Large Screw Driver. Each..... **10c**
- 86E113**—Oil Can. Each..... **10c**

Genuine Greist Attachments

Nickel-plated. Put up in a velvet-lined metal box. When ordering state name of machine they are to be used on. Ship wt., about 1 lb.

86E124—For Vibrating Shuttle Machines. Price, postpaid..... **\$1.85**

86E123—For Rotary Machine. Price, postpaid..... **2.95**

Sewing Machine Oil

A very high-grade oil, absolutely stainless.

86E118—4 oz. Bottle. Ship. wt., 12 oz. Each..... **\$.22**

86E119—1 Doz. 4-oz. Bottles..... **1.98**



The Right Paint
at the Right Price

We Make Our Paint and Guarantee its Quality

WARD'S Coverall House Paint is one of the best known and most widely used house paints in the country. We make it in our own factory and guarantee it both as to quality and wear. Coverall is the **right** paint at the **right** price.

Manufactured from Reliable Materials

We make Coverall House Paint from white lead, zinc, linseed oil and the other wear-resisting ingredients that long experience has taught us make good paint. It is ready-mixed and ready to use. No experience is required.

It spreads well, covers thoroughly, is good-looking, hard-drying, and long-wearing. It is the best paint we know of for the money and we guarantee it to give you real satisfaction.

Ready-Mixed—Anyone Can Apply

Coverall House Paint comes to you ready for use. No experience is needed to apply it. Full directions on the can. You can do your own painting and save money.

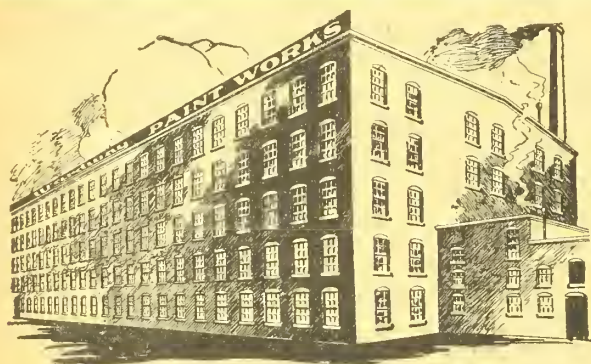
EVERY gallon of Coverall House Paint is backed by our guarantee. It will give you the service you have a right to expect or we agree to refund you your money. We make Coverall and we know what we can do. We guarantee it because we **know** it will make good.

Protects—Preserves—Increases Value

Coverall's tough, durable film shields from the hot sun, sheds the soaking rain, keeps the surface sound and water-tight—and safe from rot and decay. In addition, its attractive, glossy finish and popular colors improve the appearance of your house and increase its value.

Large Covering Capacity Saves You Money

A special feature of Coverall House Paint is its large covering capacity—250-350 square feet, 2 coats per gallon. That is, it will cover that much surface thoroughly and well. This is a very important feature to the man buying paint. Paint with as big a "spread" as Coverall has, goes farther. Less paint is required for the job—you save on the total cost of the paint.



We Make Our Own Paint— To Be SURE that It is GOOD

To protect our customers and to make sure that our paint is reliable and dependable, we own and operate this big paint factory.

That was why, in January 1917, we opened our own paint factory—to be sure that our paint was GOOD paint—to be sure that our customers got full value of their money. We went to the enormous expense of equipping and maintaining a special paint plant just so we could oversee every step in the process of its manufacture. It's the best evidence we know of, that, in January 1921—only four years later—we were compelled to double the size of our paint factory to handle our orders. We believe this the final and absolute proof—the fact that the American public demanded more of our paint than we could possibly produce.

In our new factory—shown above—we are now in position to handle more business in order to give all our old customers and as many more new ones—a chance to buy their paint at the lowest price.

Read This From One
of Our Customers
Montgomery Ward & Co.
The Coverall Paint I
bought from you this
spring was the best paint
I ever used.
I figured I saved \$2 a
gallon, buying direct
from you.
(Signed) F. G. Riehter,
La Porte, Ind.
RFD-237
Letters Printed by
Permission.

32 Popular Colors—and White or Black

| BE SURE TO STATE COLOR WANTED | | | |
|-------------------------------|------------------|----------------------------|--|
| No. 10—Inside Gloss White | | No. 11—Outside Gloss White | |
| No. 10½—Inside White | | No. 22—Black | |
| 12—Light Tan | 34—French Drah | 53—Light Brown | |
| 13—Cherry Red | 35—Pearl Gray | 54—Dark Gray | |
| 14—Dark Tan | 36—Deep Drah | 55—Lead Color | |
| 15—Wine Color | 39—Brown | 56—Ivory | |
| 20—Buff | 42—Blind Green | 58—Willow Green | |
| 21—Fawn | 44—Moss Green | 59—Sky Blue | |
| 23—Cream | 45—Lettuce Green | 60—Gray Stone | |
| 26—Salmon | 47—Sea Green | 61—Sage | |
| 28—Straw | 49—Pink Tint | 62—Pure Gray | |
| 29—Canary | 50—Ocean Blue | 63—Pea Green | |
| 32—Light Slate | 52—Deep Blue | | |

Colors—59—Sky Blue, 50—Ocean Blue, 52—Deep Blue and 49—Pink Tint are for inside use and porch ceilings only.

Sizes and Prices of Coverall House Paint

| | |
|--|--------|
| 275E7715—50-gallon barrel. Per gallon..... | \$1.98 |
| 275E7714—25-gallon barrel. Per gallon..... | 2.04 |
| 175E7713—5-gallon can. Per gallon..... | 2.16 |
| 475E7712—3-gallon can. Per gallon..... | 2.17 |
| 575E7711—1-gallon can..... | 2.18 |
| 575E7710—½-gallon can..... | 1.20 |
| 575E7709—1-quart can..... | .65 |

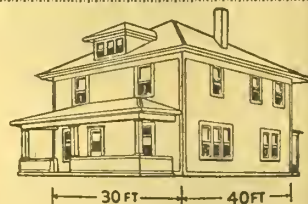
Shipping weight per gallon, about 15 pounds. Barrels and 5-gallon cans shipped from Chicago. Barrels and 5-gallon cans may be shipped from New York Warehouse if requested in order.

How to Measure Your House For PAINTING

Coverall and Wardway House paints are noted for the large amount of surface one gallon will cover. To figure how many gallons you need for painting your house, first figure up the number of square feet of surface to be painted. Add the 4 sides together and multiply by the height. For example, take a house 30 by 40 ft., 20 ft. high, as shown at right.

| | |
|-------------------------|--------|
| Front..... | 30 ft. |
| One side..... | 40 ft. |
| Other side..... | 40 ft. |
| Rear..... | 30 ft. |
| Multiply by height..... | x 20 |

Gives surface to be covered.....2800 sq. ft.



To measure your roof for painting staining, multiply the width of the house by the length and add ½ which will give you the number of sq. ft. in the roof. Divide by the number of sq. ft. 1 gallon will cover.

Divide the total number of sq. ft. to be covered by the number of sq. ft. one gallon will cover. The result will show the number of gallons needed. Allow a little extra, especially if new lumber. Allow about ¼ extra for trimming. If in doubt, write us.



Made in our Own Factory
Every Gallon Guaranteed

Ward's Paint is an Investment — Not an Expense

WARD'S Coverall Barn Paint is a practical paint for a practical purpose. It is an investment—not an expense. It is made to protect and to serve. It saves repair bills by shielding from weather wear and postpones rebuilding by stopping decay. Using Ward's Coverall Barn Paint is like putting money in the bank. You don't spend the money—you save it.

A Genuine Mineral Barn Paint

We make Coverall Barn Paint from weather and wear-resisting mineral pigments and oxides, ground by special heavy machinery and thoroughly mixed with the necessary linseed oil, driers, etc. It is, of course, not as high quality or as finely ground as our House Paints, but it is the right paint for the job and will save your barn from decay. It also improves its appearance, making it look fresh and new.

Satisfactory Service Guaranteed

Coverall Barn Paint is backed by our guarantee of satisfaction or your money refunded. Don't be afraid of its low price—we manufacture it in our own factory and are able to sell it at one very small profit. It will give you good service the whole year 'round.

Adds Years to the Life of Your Fence Posts!



Ward's Creosote Wood Preservative

Protects from Ground Moisture and Decay
Saves Wood—Saves Money

LATE Experiment Stations recommend creosote oil for preserving fence posts, sills and docks—any wood coming in contact with ground moisture or the action of water. Railroad and steamship companies use creosote for preserving telegraph poles, ties, bridge supports, and wharves.

Creosote oil is one of the best wood preservatives known. It is not an experiment—it is a proved and accepted fact that it does protect the wood and keep it last longer. It is one of the most highly recommended agents in the wood-preservation campaign that is arousing the nation.

That is why Ward's Wood Preservative is so highly recommended. It is a good creosote oil product which penetrates the wood and seals the pores. Protects from ground moisture and resists the attacks of insects and fungi. Keeps the wood last longer, postponing rot and decay and saving you many dollars in repairs and replacements. Its cost is almost too small to be considered, compared to the value of the property it protects.

Apply it with a brush or by dipping the butt ends of fence posts into a tank of creosote with wood preservative (see illustration). If heated, the liquid will penetrate deeper. No other preparation is necessary and no experience is required.

Five gallons is enough to treat about 100 fence posts.

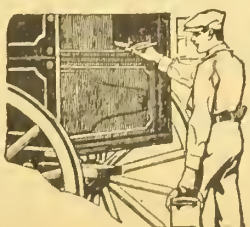
| | |
|------------------------------|-----|
| E 7759—50-gal. bbl. Per gal. | 63c |
| E 7758—25-gal. bbl. Per gal. | 67c |
| E 7757—5-gal. can. Per gal. | 79c |
| E 7756—1-gal. can. | 83c |

Shipping weight per gallon, about 10 lbs. Barrels shipped from Chicago.

Keeps Your Wagon Out of the Repair Shop!

It's cheaper to keep your old wagon painted than to buy a new one. Ward's Wagon or Implement Paint—specially made in our factory for protecting and preserving iron and wood—is the best to use on wagon bodies, wheels or parts. Also for painting implements to protect them from rust. A few dollars spent for this paint this year may save you considerably more next spring. Choice of 6 popular colors, glossy finish. State Color Wanted.

| | | |
|---------------------------------|-----------|----------|
| 173—Coach Red | 171—Black | 168—Blue |
| 172—Yellow | 170—Green | 160—Gray |
| E 7815—Pint. Ship. wt. 2½ lbs. | | \$.44 |
| E 7816—Quart. Ship. wt. 1½ lbs. | | .30 |
| E 7817—½ gal. Ship. wt. 9 lbs. | | 1.50 |
| E 7818—1 gal. Ship. wt. 14 lbs. | | 2.85 |



Montgomery Ward & Co.
I sent for a barrel of barn paint from you and I am thoroughly satisfied with your quality and the value of it. I could not buy the same paint here—it would at least have cost me a dollar per gallon more for it.
(Signed) Harry Greisler
Bird City, Kansas
We never reproduce customers' letters without their permission.

Sizes and Colors—State Color Wanted

| 150—Yellow | 155—Maroon | 157—Red | 159—Slate | |
|-------------------------------------|------------|---------|-----------|--------|
| 275 E 7724—50-gal. barrel. Per gal. | | | | \$1.28 |
| 275 E 7723—25-gal. barrel. Per gal. | | | | 1.34 |
| 175 E 7722—5-gal. can. Per gal. | | | | 1.38 |
| 475 E 7721—3-gal. can. Per gal. | | | | 1.39 |
| 575 E 7720—1-gal. can. | | | | 1.40 |

Shipping weight, per gallon, about 15 pounds.

Barrels and half barrels shipped from Chicago Paint Plant.

Barrels and half barrels and 5-gallon cans will be shipped from New York Warehouse if requested on order.

Now is the Time to Paint



Paint to PROTECT Your Property

EVERY dollar you spend for Ward's Paint is put right back in your pocket by the saving you make in repair bills and the increase in the value of your property.

Ward's House and Barn Paints are guaranteed to resist weather wear. They are specially made to form a durable, protective coating over the surface, thus excluding moisture and shielding from extremes of heat and cold. This coating prevents decay and postpones rebuilding. In one year alone, the saving you make in repair bills, should more than repay you for the small cost of Ward's paints.

And remember, a well painted house is worth more. It is in better condition. It has a better appearance. It will bring more money in case you want to sell. It is worth more money to you, as the home-owner.

Ward's paint is an investment—an investment that pays.

Paint Now— This Summer or Fall

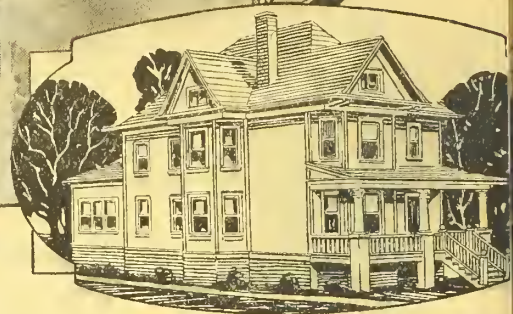
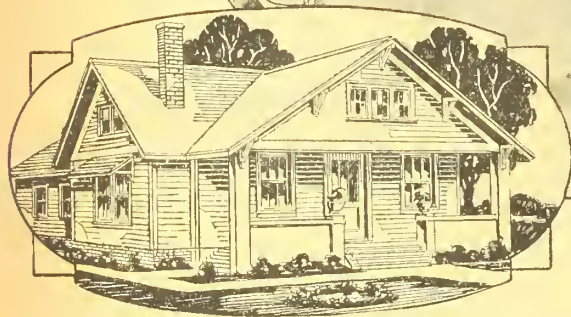
Many experienced painters recommend late summer and fall as the ideal time for painting. The wood is thoroughly dry by that time and there is less danger of the paint being blistered by the intense heat of the sun. There is less likelihood of sudden showers. There is less bother from swarms of gnats, etc.

NOW is the time to paint. Get your house painted and protected before winter comes. You will find one coat now may save you two coats next spring.

Always—it's cheaper to paint than not to paint.



wardway HOUSE PAINT



**\$2.92 to \$3.19
Per Gallon**

Makes Your House Last Longer and Worth More

WARDWAY House Paint is recommended for the finest homes. It is easy flowing, fine spreading, uniform in quality. We make it in our own paint factory and are willing to stake our reputation as paint makers on the service it will give.

Wardway House Paint beautifies and protects your home. It improves its appearance makes it worth more money.

The few dollars you pay for Wardway House Paint is more than repaid by the saving in bills and the increase in value of your home. You don't spend money for Wardway House you invest it—to make your home look better—last longer—worth more.

All Materials Carefully Selected

Made from a carefully tested formula—the result of our long experience and skill in manufacturing good paint. The white lead, zinc, linseed oil and other materials in Wardway House Paint are all carefully chosen. We use sublimed white lead in Wardway House Paint, for example, and every other item in the time-tested formula is chosen for a very definite purpose. Ready-mixed—directions on every can. Guaranteed.

Be Sure to State Color Wanted

| | |
|--|--|
| No. 10—Inside Gloss White. No. 10½—Inside Flat White | No. 11—Outside Gloss White No. 22—Black. |
| 12—Light Tan 13—Cherry Red 14—Dark Tan 15—Wine Color 20—Buff 21—Fawn 23—Cream 26—Salmon | 28—Straw 29—Canary 32—Light Slate 34—French Drab 35—Pearl Gray 36—Deep Drab 39—Brown 42—Blind Green |
| 44—Moss Green 45—Lettuce Green 47—Sea Green 49—Pink Tint 50—Ocean Blue 52—Deep Blue 53—Light Brown 54—Dark Gray | 55—Lead Col. 56—Ivory 58—Willow G. 59—Sky Blue 60—Gray Sto. 61—Sage 62—Pure Gra. 63—Pea Gree |

Colors 59—Sky Blue, 50—Ocean Blue, 52—Deep Blue and 49—Pink Tint are for use and porch ceilings only.

| | |
|-------------------------------------|-------|
| 275 E 7706—50-gal. barrel. Per gal. | ..... |
| 275 E 7705—25-gal. barrel. Per gal. | ..... |
| 175 E 7704—5-gal. can. Per gal. | ..... |
| 475 E 7703—3-gal. can. Per gal. | ..... |
| 575 E 7702—1-gal. can. | ..... |
| 575 E 7701—½-gal. can. | ..... |
| 575 E 7700—1-quart can. | ..... |

Shipping weight, per gallon, about 15 pounds.

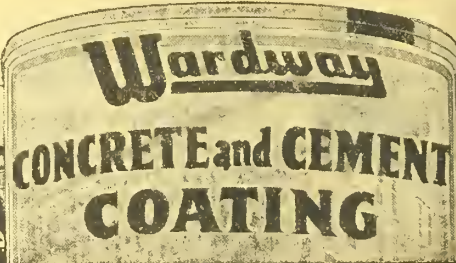
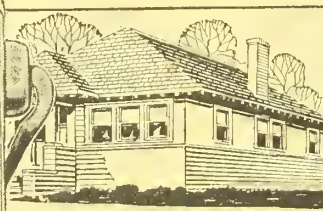
Barrels and half-barrels shipped from Chicago Paint Plant.

Barrels, half barrels and 5-gal. cans may be shipped from New York Warehouse requested on order.

Extra Large Covering Capacity

One gallon of Wardway House Paint will cover 250-350 square feet, two coats. This is an extra large amount of surface for a paint to cover, yet Wardway covers that much and does it well.

Remember this in figuring up the cost of your paint. Buy your paint according to the amount of surface it will cover, instead of by price alone. The paint that spreads farthest goes farthest—you don't need as many gallons.



Preserves While It Beautifies

WARD'S Creosote Shingle Stain is made for the double purpose of protecting shingles and beautifying them. It is an attractive stain and reliable wood preservative combined. Use it on both shingle roofs and sides of houses.

It contains a large percentage of creosote oil, one of the best wood preservatives known. It penetrates the wood and seals the pores, keeping out the moisture and protecting the wood from extremes of heat and cold. It is much better for this purpose than ordinary paint.

Protects the shingles from weather wear, postponing the time when they warp or crack and have to be replaced. It saves its cost many times over on just this one item alone. And in addition its soft-toned colors make the whole house more attractive. Wardway Creosote Shingle Stain is one of the best investments you can make for your home. Easy to use. Brush it on with an ordinary paint brush or dip the shingles two-thirds their length.

Brushed on 1 gallon covers about 100 sq. ft. of surface, 2 coats. 2½ gals. will treat about 100 shingles, dipped two-thirds their length.

Made in the Following Colors. State Color Wanted

500—Dark Brown
511—Dark Green

572—Red
516—Grass Green

Sizes and Prices

| | |
|-------------------------------------|-------|
| 275 E 7763—50-gal. barrel. | 80c |
| Per gal. | ..... |
| 275 E 7762—25-gal. barrel. Per gal. | 86c |
| 175 E 7761—5-gal. can. Per gal. | 92c |
| 575 E 7760—1-gal. can. | 95c |

Shipping weight, per gallon, about 15 lbs.

Barrels and half-barrels shipped from Chicago.

After Selecting Your Paint Turn to Our Pages of

Farm Implements

Pages 856 to 887

Renews the Beauty of Stucco Homes

WARD'S Concrete or Cement Coating is one of the best products we know of for use on stucco. It is not a cheap, temporary coating but a reliable, permanent paint made in our factory for this special purpose.

On old stucco its fresh colors give the house a bright, almost new appearance. Protects the finish on new stucco homes—keeps them fresh and attractive, and postpones the time when they will begin to show signs of wear. Makes old stucco houses look almost new again—particularly where color is changed, say from a weather-beaten gray to a fine, warm buff.

If you want to keep your stucco house in good condition, or want to restore original beauty either for your own satisfaction or to "fix it up" for sale, Ward's Concrete or Cement Coating.

Made in the Following Colors. State Color Wanted

101—White
102—Buff

103—Moss Green
104—Brick Red

105—Cement Gray
106—Manganese

Sizes and Prices

| | |
|------------------------------------|-------|
| 275 E 7792—Half Barrel (25 gal.) | ..... |
| Per gal. | ..... |
| 175 E 7791—Five gal. can. Per gal. | ..... |
| 575 E 7790—One gal. can. | ..... |
| 575 E 7789—Half gal. can. | ..... |

Shipping weight, per gal., about 15 lbs.

Half-barrels shipped from Chicago Paint Plant.

Ward's LIQUID ROOF CEMENT

55¢ to 82¢
Per Gallon

Makes Roofs Water Tight and Weather Proof

WARD'S LIQUID ROOF CEMENT protects new roofs from weather wear and makes old roofs last longer. Saves repair bills and post-pone rebuilding. We guarantee reliable service with every gallon.

Old rusty surfaces decayed beyond the painting stage can be recoated with Ward's Liquid Roof Cement, thus adding years to their service.

Only 1 Coat Required—Even on Oldest Surface

A coating $\frac{1}{32}$ -inch thick is usually sufficient to make any old roof waterproof. Easy to use—apply with a brush (for special knotted roofing brushes, see below). One gallon will cover about 100 sq. ft. of surface.

Well adapted for use on metal roofs and siding of all kinds; on silos, tanks and other structures; also on paper, tar, or felt roofs; and to exclude moisture on underground work, whether of wood, metal or concrete.

Glossy black in color.

WARD'S LIQUID ROOF CEMENT positively does NOT contain coal tar which has a tendency to soften in hot weather and separate from the surface to which it is applied. It will not run, sag, chip, check, scale or blister. It is a plastic composition reinforced by asbestos fiber running in all directions, which holds the coating in place until it sets.

Where the roof is in very bad condition—sunken in spots, where water collects—use WARD'S Trowel Roof Cement (See Below).

But in most cases, our Liquid Roof Cement (same as the Trowel, but of lighter consistency so that it may be brushed on) is sufficient to seal the roof tight.

A much used method is to apply Trowel Cement over the worst spots and then coat the entire surface with Liquid Roof Cement. Try this on your roof.

| | | |
|-----------------------|----------|-----|
| 275E7803—50-gal. bbl. | Per gal. | 55c |
| 275E7802—25-gal. bbl. | Per gal. | 60c |
| 175E7801—5-gal. can. | Per gal. | 77c |
| 575E7800—1-gal. can. | Per gal. | 82c |

Shipping weight, per gal. about 10 lbs.

Barrels and Half Barrels shipped from Chicago.



Asphalt Paint

For Roofs, Bridges, all Metal Work. Choice of 3 Colors—Black, Red or Green

Asphalt, the base of this special paint, is known to be a first-class protection against weather wear and a reliable rust preventive.

Recommended for all metal work, particularly metal roofs and sidings, for painting roof gutters, spouting, tanks, bridges, etc. Can be used on any roof—iron, shingle, felt or composition, with fine results. Apply it with a brush—one gal. covers 200-250 sq. ft., 1 coat.

Shipping weight, per gal. about 12 lbs.

| | |
|----------------------------|----------------|
| Black | |
| 275E8354—50-gallon barrel. | Pergal. \$.60 |
| 275E8353—25-gallon barrel. | Pergal. .66 |
| 175E8351—5-gal. can. | Pergal. .75 |
| 575E8350—1-gallon can. | Pergal. .83 |
| Red | |
| 275E8359—50-gal. bbl. | Pergal. .88 |
| 275E8358—25-gal. bbl. | Pergal. .94 |
| 175E8356—5-gal. can. | Pergal. 1.04 |
| 575E8355—1-gal. can. | Pergal. 1.12 |

Green

| | |
|-----------------------|--------------|
| 275E8364—50-gal. bbl. | Pergal. 1.72 |
| 275E8363—25-gal. bbl. | Pergal. 1.78 |
| 175E8361—5-gal. can. | Pergal. 1.88 |
| 575E8360—1-gal. can. | Pergal. 1.96 |

Shipping weight, per gal. about 12 lbs.

Barrels and Half Barrels shipped from Chicago.

Roof and Fence Paints



We have been making this paint for years and our customers time and again have expressed their continued satisfaction with it.

It is a heavy oil paint, containing enough asphaltum to insure its sticking to iron, tin or other metal. Forms a tough, durable film over the surface which resists sun and storm, sleet and rain.

Will add years of service to an old roof. Also recommended for tanks, windmills, etc. Ready to use—easy to apply. 1 gal. covers 200-300 sq. ft., 1 coat.

Prices of Black.

| | |
|--|----------------|
| 275E8418—Barrel (50 gallons.) | Pergal. \$.82 |
| 275E8417— $\frac{1}{2}$ barrel (25 gal.) | Pergal. .88 |
| 175E8416—5-gallon can. | Pergal. .98 |
| 575E8415—1-gallon can. | Pergal. 1.10 |

Prices of Maroon (Dark Red)

| | |
|--|--------------|
| 275E8422—Barrel (50 gallons.) | Pergal. .98 |
| 275E8421— $\frac{1}{2}$ barrel (25 gal.) | Pergal. 1.04 |
| 175E8420—5-gallon can. | Pergal. 1.21 |
| 575E8419—1-gallon can. | Pergal. 1.33 |

Ship. wt., per gal., 15 lbs. Bbls. shipped from Chicago.

Graphite Paint

The natural graphite, mixed and ground in linseed oil and made into a durable, weather-resisting paint, especially suited to iron work.

Recommended for metal roofs, smoke stacks, painting the inside of roof gutters, etc.—in fact, any iron or other metal which you want to protect from rust.

One gallon will cover about 300 sq. ft., one coat.

| | |
|-----------------------|--|
| 15 pounds | Gray black in color. Ship. wt., per gal. |
| 275E7777—50-gal. bbl. | Pergal. \$1.67 |
| 275E7776—25-gal. bbl. | Pergal. 1.72 |
| 175E7775—5-gal. can. | Pergal. 1.74 |
| 575E7774—1-gal. can. | Pergal. 1.77 |
| 575E7772—1-qt. can. | Pergal. .54 |

Barrels shipped from Chicago.

Flat Brush for Heavy Painting



75E705—A wide, sturdy brush, fine for painting roofs, sheds, fences, etc. Inexpensive, but will give good wear. Black Chinese bristles, with black mixed center, solidly set in cement and metal bound. Ship. wt., 5 oz. Each. \$1.35



Trowels for Applying Trowel Cement

Standard Pointing Trowel

| | |
|---|---------|
| 84E2642—Extra fine steel, polished, with hardwood handle. For pointing cement around chimneys and corners. Wt., 6 to 10 oz. | |
| Length, in. | 4 5 |
| Each. | 33c 45c |

Square-End Plasterer's Trowel

| | |
|---|---------|
| 84E2634—Good grade steel, finely finished. For use on large surfaces, such as when entire roof is to be cemented. Ship. wt., 2 lbs. | |
| Length, inches. | 11 12 |
| Weight, ounces. | 18 20 |
| Each. | 68c 77c |

Trowel Roof Cement

For Repairing Roofs in Especially Bad Condition
Extra Heavy—Apply with Trowel

Similar to Liquid Roof Cement, listed above, but heavier. Sticks to any surface and will not get hard or brittle in the winter nor soften or run in the summer.

Jet black in color, non-poisonous, will not taint nor discolor rain water. On average roof a coating $\frac{1}{16}$ to $\frac{1}{8}$ -inch thick is sufficient. When so spread, 40 lbs. will cover about 100 sq. ft. Also for sealing around chimneys, drain pipes, etc.

Barrels and Half Barrels shipped from Chicago.



Liquid Coal Tar

Subject to market changes.

Protect roofs, metal surfaces, water tanks, fence posts, etc., by recoating and painting them with our superior grade of Distilled Liquid Coal Tar. Apply with a brush. To get very best results, heat to near the boiling point.

| | |
|-----------------------|-----|
| 275E8413—50-gal. bbl. | 30c |
| 275E8412—25-gal. bbl. | 36c |
| 175E8411—5-gal. can. | 53c |
| 575E8410—1-gal. can. | 65c |

Ship. wt., per gal. 12 lbs.

Roofing Pitch

Prices subject to Market changes.

Used for gravel roofs, tarred roofs, and for waterproof foundations below ground. Must be melted and applied hot. Spread on with long handle roofing brush. Comes in barrels only, weighing from 350 to 500 pounds.

| | |
|--|--------|
| 275E8405—per bbl. of 500 lbs. of Roofing Pitch, at \$1.50 per 100 lbs. | \$7.50 |
|--|--------|

Shipped from Factory in Chicago.

Knotted Roofing Brushes

Made of mixed cord, 3 inches long. Wt., each, 8 to 20 ounces. Handle not furnished. Use broom handle or long pole.

(Illustration above shows 3 Knot Brushes.)

| | |
|---------------------|--------|
| 75E721—1-Knot brush | \$.45 |
| 75E722—2-Knot brush | .85 |
| 75E723—3-Knot brush | .98 |
| 75E724—4-Knot brush | 1.35 |



Asbestos Elastic Cement

For plugging up leaks in roofs, gutters and around chimneys, skylights, etc. May be used on wood, brick, iron, tin or glass. Apply with a putty knife or trowel.

| | |
|--|-----|
| 575E7780—2 $\frac{1}{2}$ -pound can, each. | 35c |
| 575E7781—5-pound can, each. | 50c |

Tinners' Red

A ready mixed oxide paint used as a first coat over metal roofs, gutters, downspouts, etc. Prevents rust and makes the metal last longer, saving repairs.

We recommend this paint for use anywhere on tin or iron work in place of the more expensive Red Lead. Ship. wt., per gal. 15 lbs. Per Gal.

| | |
|-----------------------|--------|
| 275E7767—50-gal. bbl. | \$1.24 |
| 275E7766—25-gal. bbl. | 1.30 |
| 175E7765—5-gal. bbl. | 1.45 |
| 575E7764—1-gal. bbl. | 1.55 |

Bbls. shipped from Chicago.

Elastic Roof Paint For Patching Leaky Roofs

Not as heavy as our other roof coatings—but a good, durable roof paint at a low price.

Used particularly for repairing and "fixing up" old, leaky roofs. A leak can be stopped by first painting the surface over the leak, then laying on a piece of muslin, and finally coating the muslin with another layer of paint.

Will stand expansion and contraction caused by weather changes, without cracking or peeling. Ready to use—apply with a knotted roofing brush. Glossy, black finish. One gallon covers about 250 sq. ft., one coat.

| | |
|-------------------------|-----|
| 275E7753—50-gal. barrel | 30c |
| 275E7752—25-gal. barrel | 36c |
| 175E7751—5-gal. can. | 52c |
| 575E7750—1-gal. can. | 70c |

Shipping weight per gallon, 10 pounds. Barrels and Half Barrels shipped from Chicago.





\$2.40
Per Gallon

The Up-to-Date Finish for Fine Walls

WARD'S Flat Wall Finish is one of the newest styles in modern decoration. The plain "flat" (without gloss), velvety finish is very artistic and fashionable.

Many beautiful color combinations are possible with the harmonious shades of Wardway Flat Wall Finish. The "plain" effect of the one-toned, no-gloss walls makes a refined and dignified setting for furniture and furnishings. Always in the very best style.

May also be used on woodwork, wall board and metal ceilings. Protects the surface on which used.

Wardway Flat Wall Finish is made in our own factory and is ready-mixed and ready to use. You can redecorate the walls of your home in little time and with less effort. The results are always satisfactory.

A particular feature of Wardway Flat Wall Finish is the fact that it may be easily and quickly cleaned. Use our Wall Cleaner listed below. If plastered walls have not been previously sized or painted, first use our Fresco Wall Size.

On smooth, plastered walls, one gallon of Wardway Flat Wall Finish will cover 200-250 sq. ft. 2 coats. State color wanted.

| | | | | |
|------------------|------------------|------------------|-----------------|-----------------|
| 120—Ivory | 123—Light Tan | No. 71½—White | 127—Quaker Gray | 130—Maple Green |
| 121—Buff | 124—Golden Brown | 128—Pale Azure | 132—Old Rose | 133—Deep Blue |
| 122—Light Canary | 126—Shell Pink | 129—Willow Green | | |

| | | |
|----------------------------|--|----------------------------|
| 575 E 8086—1 quart. \$.67 | Shipping weight per gallon, 15 pounds. | 575 E 8088—1 gallon \$2.40 |
| 575 E 8087—½ gallon. 1.27 | | 475 E 8089—3-gal. can 7.10 |

Up-to-Date Wall Finishes

Ward's Kalsomine

SANITARY kalsomine is becoming more and more popular every year. It is easy to put on and is inexpensive. Mix it with water and it is ready to apply. 4-lb. package covers about 500 sq. ft. Give walls never before painted or kalsomined a first coat of our Fresco Wall Size. Choice of White and 12 colors. State color wanted.

| | | | | |
|-----------------|----------------|----------------|----------------|----------------|
| 201—Buff | 211—Pale Blue | 200—White | 232—Light Tan | 257—Light Buff |
| 203—Shell Pink | 230—Sage Green | 254—Alice Blue | 262—Pea Green | |
| 210—Pale Canary | 231—Deep Tan | 256—Ivory | 270—Pearl Gray | |

Sizes and Prices of Kalsomine

| | | |
|----------------------------------|--------------------------|--------|
| 575 E 8325—4-lb. pkg. | Any color, per pkg. | \$.44 |
| 75 E 8330—80-lb. case (20 pkgs.) | All one color, per case. | 8.6 |
| 175 E 8327—50-lb. box. | All one color, per box. | 4.9 |

Special Fresco Colors

Fresco Colors—For stencils and paneling. Used with Kalsomine shade for border, panels and stencils. Also for tinting—it mixes readily with Kalsomine. State color wanted.

| | 4-lb. Pkg. | 1-lb. Pkg. |
|------------------|-----------------------|-------------------|
| 312—Yellow | 575 E 8347.....\$1.12 | 575 E 8348.....30 |
| 308—Scarlet Lake | 575 E 8343.....1.98 | 575 E 8344.....53 |
| 310—Deep Blue | 575 E 8345.....1.67 | 575 E 8346.....63 |
| 313—Myrtle Green | 575 E 8341.....1.58 | 575 E 8342.....40 |



Ward's Fresco Wall Size

Plastered walls must be sized before painting or kalsomining so the finish will not "soak in" and leave unsightly spots. Our Fresco Wall Size is in liquid form, made especially for this purpose. It seals the pores of the plaster so that the finish presents a smooth, even-toned appearance.

| | |
|----------------------------|--------|
| 575 E 8736—1 qt., 3¼ lbs. | \$.47 |
| 575 E 8737—½ gal., 6 lbs. | 1.92 |
| 575 E 8738—1 gal., 12 lbs. | 1.75 |
| 575 E 8739—5 gal., 55 lbs. | 8.53 |

Wall Sponges

"Sheepswool" is a soft but tough, springy sponge called "Sheepswool" because its texture resembles that of sheep's wool. Fine for washing walls, cleaning autos, etc. Ship. wt., 4 oz.

| | |
|--|-----|
| 75 E 887—Each | 75c |
| The Dandy is a good sponge at a low price. Coarser than the "Sheepswool" but will give good service. | |
| 75 E 890—Each | 18c |

Stencil Brushes

| | |
|---|-----|
| 75 E 735—Stencil Brush. Black Chinese bristles, ¾ in. long, ¾ in. wide. | 16c |
| Weight 3 oz. | |
| 75 E 736—Same except ¾ in. wide and bristles 1 in. long. | 23c |

Master Painters' Wall Size

Wall Size in powder form. Used for the same purpose as Fresco Wall Size listed above. One pound of this size, mixed with water makes two gallons of wall size. Directions on package.

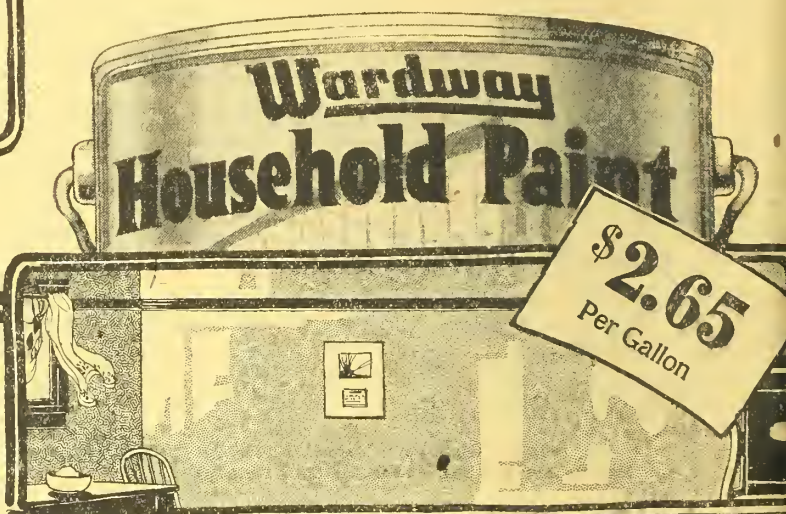
| | |
|------------------------|--------|
| 575 E 8950—1-lb. pkg. | \$.40 |
| 575 E 8951—10 packages | 3.85 |

STENCILS

Sheets of heavy oiled paper with design cut out. By painting in the spaces the design is transferred to the wall. Popular for making borders over Flat Wall Finish and Kalsomine, also on curtains, etc.

| | | | |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | | | |
| 475 E 8894 1½ in. wide...14c | 475 E 8893 2½ in. wide...15c | 475 E 8818 4½ in. wide...20c | 475 E 8874 3¼ in. wide...25c |
| | | | |
| 475 E 8864 7 in. wide...30c | 475 E 8855 10 in. wide...35c | 475 E 8882 8 in. wide...48c | 475 E 8867 5 in. wide...29c |

See Stencil Brushes above



\$2.65
Per Gallon

Semi-Gloss Finish for Walls or Wood

WARDWAY Household Paint is an oil paint with an attractive, semi-gloss finish. Used on any inside work—particularly recommended for kitchen and bathroom walls. Made in our own factory.

A paint for every purpose—for walls, woodwork, floors and furniture. Use it anywhere inside the house—it does the work that used to require several different kinds of paint and does each job well.

It has a pleasing semi-gloss finish which may be washed with soap and water without injuring the finish. This makes it especially desirable for painting kitchen, pantry and bathroom walls.

One gallon covers about 250 sq. ft., 2 coats. Plastered walls never before painted or sized, must first be sized with Fresco Wall Size (listed on this page).

Choice of 12 popular colors and white.

Be Sure to State Color Wanted

| | | | | |
|-----------|----------------|------------------|---------------|-------------------|
| 620—Ivory | 623—Light Tan | No. 671—White | 628—Pale Blue | 632—Old Rose |
| 621—Buff | 626—Shell Pink | 629—Willow Green | 633—Deep Blue | 633—Leather Brown |
| 622—Cream | 627—Light Gray | 630—Maple Green | | |

Sizes and Prices of Wardway Household Paint

| | | | |
|---|-----|--------------------------|--------|
| 575 E 8060—1 pint..... | 44c | 575 E 8062—½ gallon..... | \$1.38 |
| 575 E 8061—1 quart..... | 72c | 575 E 8063—1 gallon..... | 2.65 |
| Shipping weight, per gallon, 15 pounds. | | | |

High Quality Enamels



Ward's Radiator Enamel

Don't let darkened, worn looking radiators spoil the looks of an otherwise attractive room.

Ward's special heat-resisting radiator enamel brightens and renews the worn looking radiators. Also recommended for picture frames, gilt moldings, chandeliers, etc.

Handy two-compartment cans—one compartment containing finely ground bronze powder and the other high quality bronzing liquid. Price of gold or aluminum.

| Gold | | Aluminum | |
|-----------------|--------|-----------------------|--------|
| 5796—Pint..... | \$.80 | 575 E 8798—Pint..... | \$.80 |
| 5797—Quart..... | 1.68 | 575 E 8799—Quart..... | 1.40 |

Shipping weight, pints, 2 pounds; quarts, 3 pounds.

Vernis Martin Lacquer

Transparent, protective coating for woodwork. To produce a correct finish of genuine Vernis Martin use over Martin Bronze. One coat protects or other metal.

| | |
|------------------|-----|
| 5556—½ pint..... | 30c |
| 5557—1 pint..... | 50c |

Vernis Martin Bronze

Verized. Mix 6 oz. with 1 pint Bronz-
ing Liquid.

| | |
|----------------|--------|
| 5541—1 oz..... | \$.14 |
| 5543—½ lb..... | .98 |
| 5544—1 lb..... | 1.90 |

Bright Gold Bronze

Verized. To use mix 6 oz. with 1 pint
ing Liquid.

| | |
|----------------|--------|
| 5510—1 oz..... | \$.10 |
| 5512—½ lb..... | .78 |
| 5513—1 lb..... | 1.45 |

Aluminum Powder

Verized. Mix 4 oz. with 1 pint. Bronz-
ing Liquid.

| | |
|----------------|--------|
| 5520—1 oz..... | \$.09 |
| 5522—½ lb..... | .73 |
| 5523—1 lb..... | 1.85 |

Bronzing Liquid

For mixing with gold and aluminum paint.
Durable

| | |
|-------------------------|-----|
| 75 E 8532—½ pint..... | 22c |
| 575 E 8530—1 pint..... | 38c |
| 575 E 8531—1 quart..... | 65c |

Mixed Aluminum Paint

Ready to use. For coating pipes, radi-
ators, railings, frames, etc.

| | |
|-------------------------------|--------|
| 75 E 8184—½ pint..... | \$.18 |
| 575 E 8185—1 pint..... | .30 |
| 575 E 8187—1 pint. Ship. wt., | .48 |

2½ lbs.

| | |
|------------------------------------|------|
| 575 E 8188—1 qt. Ship. wt., 3 lbs. | 1.50 |
|------------------------------------|------|

Mixed Gold Paint

Ready to use. For picture frames,
brackets. Also radiator, pipes, etc.

| | |
|------------------------|--------|
| 75 E 8188—½ pint..... | \$.20 |
| 575 E 8190—1 pint..... | .32 |
| 575 E 8191—½ pint..... | .30 |

2½ lbs.

| | |
|------------------------------------|------|
| 575 E 8193—1 qt. Ship. wt., 3 lbs. | 1.58 |
|------------------------------------|------|



The Beautiful White Enamel that Stays White

WARD'S Towerlite White Enamel is white as snow. And it's a lasting white—durable and hard wearing.

Use Towerlite for enameling either wood or metal surfaces and plastered walls. Use it for all kinds of furniture, woodwork, and interior decorating. Ideal for refinishing the bathroom, as it may be used for the walls, the furniture and even the bath tub. It is high grade and reliable in every way.

Your choice of either the glossy or the "egg shell" (no-gloss) finish. The glossy finish may be rubbed if desired. With the "egg shell" finish, rubbing is unnecessary.

One gallon covers about 200 to 250 sq. ft., 2 coats.

Glossy Finish

| | |
|--------------------------|--------|
| 75 E 8432—½ pint..... | \$.39 |
| 575 E 8433—1 pint..... | .65 |
| 575 E 8434—1 quart..... | 1.21 |
| 575 E 8435—½ gallon..... | 2.37 |
| 575 E 8436—1 gallon..... | 4.65 |

Eggshell Finish

Pure White, Without Gloss

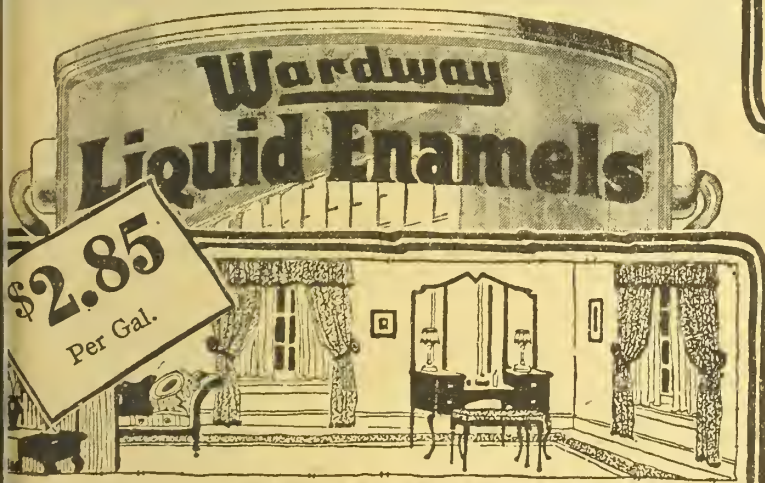
| | |
|--------------------------|--------|
| 575 E 8390—1 pint..... | \$.65 |
| 575 E 8391—1 quart..... | 1.21 |
| 575 E 8393—1 gallon..... | 4.65 |

Towerlite White Undercoat

The ideal first coat for any white or light-colored enamel. Or may be used as final coat where flat white finish is desired. One gallon covers 250 sq. ft. 2 coats.

| | | | |
|-------------------------|-----|--------------------------|------|
| 575 E 8472—1 pint..... | 38c | 575 E 8474—½ gallon..... | 1.38 |
| 575 E 8473—1 quart..... | 71c | 575 E 8475—1 gallon..... | 2.60 |

Ship. wt., per gallon, 15 pounds.



Popular Colors—Brilliant Finish Washable

WARD'S Liquid Enamels are known to our customers for their unusual wear-resisting qualities. They may be washed with soap and water frequently without losing their gloss.

Just the thing for kitchen and bathroom walls, although recommended for any other walls where a bright, glossy finish is desired. Equally good for furniture and woodwork.

We particularly recommend our special glossy enamels for use in refinishing bedsteads, chiffoniers, etc. They are very attractive and not only renew the finish, but also protect the surface. May be used on metal ceilings, metal bedsteads, etc.

Ready mixed and ready to apply. We guarantee you will be perfectly satisfied both with the quality and wear of our enamels, as well as being delighted with their bright glossy finish.

If you intend putting a lighter shade over a surface now painted with a darker one, first put on a priming coat of Towerlite White Undercoat (see under Towerlite Enamel). If the surface is an unpainted plastered wall, first use Fresco Wall Size.

Be Sure to State Color Wanted

| | | | |
|-----------|------------------|--------------|-------------------|
| 171—White | 171—Ivory | 176—Straw | 177—Silver Gray |
| 179—Cream | 181—Light Tan | 175—Sky Blue | 183—Leather Brown |
| 172—Black | 184—Willow Green | | |

Sizes and Prices of Wardway Liquid Enamels

| | | | |
|------------------------|-----|--------------------------|--------|
| 75 E 8074—½ pint..... | 14c | 575 E 8077—1 quart..... | \$.82 |
| 75 E 8075—½ pint..... | 25c | 575 E 8078—½ gallon..... | 1.53 |
| 575 E 8076—1 pint..... | 48c | 575 E 8079—1 gallon..... | 2.85 |

Ship. wt., per gallon, about 15½ pounds.

Ward's Bathtub Enamel

34c Per Half Pint



Ward's Stovepipe Enamel

We have produced a special enamel for stovepipes, grates, radiators, heating drums and hot or cold water pipes, that will not crack or peel off when subjected to heat or cold.

One coat gives a durable, elastic black finish that will withstand intense heat. A pint can is sufficient to enamel six lengths of stovepipe. Preserve your stovepipes by keeping them rust-proof with our special Stovepipe Enamel.

| | |
|-------------------------|-----|
| 75 E 8177—½ pint..... | 15c |
| 575 E 8178—1 pint..... | 22c |
| 575 E 8179—1 quart..... | 38c |

Ship. wt., per quart, 4 lbs.

OF COURSE you want the bathroom to look bright, clean and sanitary. It is the one room in the house that you are most particular to keep always clean.

Nothing will add so much to the appearance of the room as a well painted bath tub. We make this special bath tub enamel in our own factory. It produces a hard, lustrous surface that will not chip, or mar, and is not affected by hot or cold water. One pint will give an ordinary bath tub two coats. Allow ample time for drying. When filling tub, start with cold water, gradually adding the hot.

| | |
|---|--------|
| Porcelain White or Old Ivory. State color wanted. | |
| 75 E 8160—½ pint..... | \$.34 |
| 575 E 8161—1 pint..... | .56 |
| 575 E 8162—1 quart. Wt., 4½ lbs. | 1.05 |

Ward's Wall and Window Shade CLEANER

BRIGHTENS and renews darkened or soiled wall paper, walls, window shades, etc. If you are not planning on papering, painting or re-kalsomining all your walls this season, use this special Wardway Cleaner on the rest.

Comes in a cake, similar in texture to bread dough. You knead it as you clean the wall. Easy to use and will not injure the hands or surface upon which it is used. Full directions on each package.

| | |
|-----------------------------------|--------|
| 575 E 856—Price, per package..... | \$.10 |
|-----------------------------------|--------|

Price, per dozen packages..... 1.10

Shipping weight, per package, 1 pound.



HRH Paint Cleaner

This is the cleaner that is advertised so much for cleaning and renewing all kinds of painted surfaces and also for cleaning marble, mosaic floors and linoleum.

| | |
|-------------------------------|----|
| Reliable—we recommend it. | |
| 575 E 864—14-oz. package..... | 9c |

Bathroom Fixtures?

Certainly! We Carry a Complete Line. See page 829.



\$2.45
Per Gallon



WARD'S Co-Var-Finish Beautiful Colored Varnish

CO-VAR FINISH is both a varnish and a stain. Colors and varnishes with one stroke of the brush. Makes any wood any color desired.

Use it on floors, furniture, or woodwork. It gives the color of the more expensive woods—like mahogany, walnut or rosewood at small cost. If your floors or woodwork are scarred, use Co-Var Finish to change the color and make them look bright and new again. If you have an old piece which is good in every way except looks, use Co-Var Finish to restore its beauty and put it back into service.

Anyone can use Co-Var Finish. No experience needed—simply apply it with a varnish brush, like ordinary varnish. It is not necessary to remove the old finish—just see that the surface is dry, clean and smooth. Co-Var Finish dries over with a finish hard as rock.

Choice of 8 Popular Colors and Clear or Natural

- State color wanted.
- | | | |
|---------------|---------------------------------------|----------------------|
| 183—Cherry | 186—Rosewood | 188—Walnut |
| 184—Mahogany | 186½—Leaf Green | 190—Ebony (Black) |
| 185—Light Oak | 187—Antique Oak | 189—Clear or Natural |
| | 188½—Ground Color (see notice below.) | |

Important Notice. Before putting a lighter color over a surface now finished in a darker color, it is necessary to put on a coat of "Ground Color" before applying the desired shade of Co-Var Finish. Price of Ground Color same as for any other color.

- | | | | |
|---|-----|---------------------------|------|
| 575 E 8109—Trial Outfit, ½ pint can, with 1-inch varnish brush..... | 27c | 575 E 8112—½ gallon | 1.25 |
| 575 E 8110—1 pint..... | 39c | 575 E 8113—1 gallon | 2.45 |
| 575 E 8111—1 quart..... | 68c | | |
- Ship. wt., per gal. about 11½ lbs. Ship. wt., Trial Outfit, 2 lbs.

Ward's No.1 Furniture Varnish



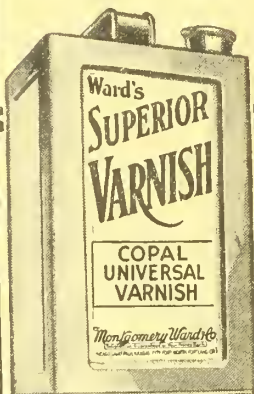
Don't put away a perfectly good piece of furniture just because it looks scratched or scarred.

You can make it look bright and new in a few moments with our No. 1 Furniture Varnish.

It dries over night with a hard, glossy finish.

It is a full bodied varnish, that will give excellent service.

- | | |
|------------------------------|--------|
| 75 E 8670—1-pint can | \$.32 |
| 575 E 8671—1-quart can..... | .58 |
| 575 E 8672—½-gallon can.... | 1.10 |
| 575 E 8673—1-gallon can.... | 2.10 |
| 175 E 8674—5-gallon can..... | 9.98 |



WARD'S COPAL The Universal Varnish

FOR all varnishing around the home. May be used anywhere—floors, furniture, woodwork. Tough and durable, dries with an attractive glossy finish.

WARD'S COPAL is the guaranteed universal varnish. Although for the best class work, we recommend our special floor or interior finish varnishes, Ward's Copal will do excellent work and gives splendid satisfaction.

Because it can be used anywhere, and none of it ever goes to waste, many customers make it a practice to keep a can of Ward's Copal around the house, for any odd job that might come up.

Try Ward's Copal in your home. It will save you money.

- | | | | |
|------------------------------|--------|-------------------------------|---------|
| 75 E 8605—1-pint can..... | \$.40 | 575 E 8608—1-gallon can | \$ 2.45 |
| 575 E 8606—1-quart can..... | .69 | 175 E 8609—5-gallon can | 12.45 |
| 575 E 8607—½-gallon can..... | 1.33 | | |

Cabinet Finish Varnish



A special hard-drying varnish for fine interior work such as cabinets, tabletops, chairs, woodwork, etc.

Recommended especially for church and school seats and desks. Dries extremely hard and resists hardest wear. Dries dust-proof in 6 to 8 hours. Can be "rubbed" in 48 hours.

- | | |
|---------------------------|--------|
| 75 E 8665—1 pint | \$.43 |
| 575 E 8666—1 quart | .77 |
| 575 E 8667—½ gallon | 1.48 |
| 575 E 8668—1 gallon | 2.80 |
| 175 E 8669—5 gallons..... | 13.50 |

Rubbed Finish Varnish



Gives the effect of a "rubbed" finish, without the time and trouble of rubbing down the glossy coat. A superior varnish, unusually good for interior work. Dries in 24 hours. Use it like regular varnish.

- | | |
|---------------------------|--------|
| 75 E 8655—1 pint | \$.42 |
| 575 E 8656—1 quart | .75 |
| 575 E 8657—½ gallon | 1.46 |
| 575 E 8658—1 gallon | 2.80 |
| 175 E 8659—5 gallons..... | 13.50 |



Penetrating Wood Stain For New Work Only

This is a penetrating stain for use on new floors, new furniture and new woodwork. Only one coat required to give a soft, pleasing, stained finish which is both stylish and popular. Just the thing for staining home-made benches, tables, etc. Also recommended for the highest grade paneling, beamed ceilings, etc.—anywhere a stained finish is desired on new wood.

Choice of 10 popular colors shown at left. Be sure to state color wanted. These stains penetrate the wood and bring out the color, but do not raise the grain. Give a beautiful "dull" finish which may be waxed or varnished (see Mission Wax at right). State color wanted.

- | | | |
|----------------------------|-----|------------------------------|
| 75 E 8130—½-pint can..... | 28c | 575 E 8132—1-qt. can. \$.73 |
| 575 E 8131—1-pint can..... | 42c | 575 E 8133—½-gal. can 1.25 |
| | | 575 E 8134—1-gal. can. 2.20 |

One gallon of our varnish covers about 600 square feet surface on oak or about 400 square feet on pine, one coat.

Shipping weights: per gallon 8 lbs.; per quart, 4 lbs.; per pint, 2½ lbs.

Mission Liquid Wax

Especially prepared for wax finish on Wood Stain. Brings out the grain perfectly. Also for use in waxing any furniture, woodwork, or floors. Apply with cloth.

- | | |
|--------------------------|-----|
| 575 E 8150—1 pint..... | 28c |
| 575 E 8151—1 quart..... | 42c |
| 575 E 8152—1 gallon..... | 84c |
- Ship. wt., per gal., 8 lbs.

WARD'S Marproof Varnish

Our Best Floor Varnish

WATER won't hurt floors varnished with Ward's Marproof. It's brilliant, mirror-like finish is as durable as it is beautiful.

Marproof is true to its name. It resists heel marks, scars and scratches. It can be washed and scrubbed without injuring the floor. It is not affected by either hot or cold water.

Use Ward's Marproof to protect the floors of your home and to make them beautiful and attractive. You will be proud of your floors when varnished with Marproof. It is the kind of varnish we recommend for finest work, regardless of cost.

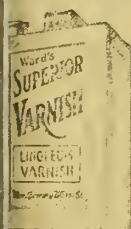
We guarantee Marproof to give you entire satisfaction. It is a full-bodied varnish, spreads easily and dries with a durable, wear-resisting finish which maintains its gloss. Use Marproof on your floors and be sure.

| | | | |
|---------------------------|--------|-------------------------------|---------|
| E 8640—1-pint can | \$.42 | 575 E 8643—1 gallon | \$ 2.88 |
| E 8641—1-quart can | .78 | 175 E 8644—5-gallon can | 13.90 |
| E 8642—½-gallon can | 1.50 | | |



\$2.88
Per Gallon

For covering capacity and shipping weights of our varnishes see opposite page.



Up-to-date
Linoleums
Shown on
Page 659

Linoleum Varnish Diamond "W" Floor Varnish

You've noticed how linoleum—even the very best quality—commences to wear in spots, after a certain length of time.

Ward's Linoleum Varnish is made to prevent this, to protect the linoleum and make it last longer.

Use it on new linoleum to keep it looking new. Use it on old linoleum to restore its beauty and bring out the original pattern.

Transparent; dries over night. Anyone can apply it, with perfect results.

| | |
|-------------------------------|--------|
| 75 E 8650—1-pint can | \$.33 |
| 575 E 8651—1-quart can | .60 |
| 575 E 8652—½-gallon can | 1.14 |
| 575 E 8653—1-gallon can | 2.20 |

We believe you will find many of our customers who used Diamond "W" Floor Varnish twenty-five or thirty years ago and still point to it with pride and satisfaction.

Diamond "W" is our old reliable brand—the varnish that made our reputation and is still just as good as ever. Although not as high a quality as our Marproof Floor Varnish it is a strictly dependable varnish and will give you years of service.

Dries with a full, rich lustre. It is tough, durable and water-proof. Priced very low, considering its quality.

| | |
|-------------------------------|--------|
| 75 E 8645—1-pint can | \$.35 |
| 575 E 8646—1-quart can | .63 |
| 575 E 8647—½-gallon can | 1.20 |
| 575 E 8648—1-gallon can | 2.30 |
| 175 E 8649—5-gallon can | 10.95 |



WARDSPAR

The Wear-Resisting Varnish

ONE of the toughest, most durable varnishes made. Patterned after the old weather-proof varnishes used on spars of sailing vessels.

Made especially for use on outside work—porch floors and ceilings, doors, vestibules, etc. It resists heat and cold and sheds rain and snow. It is the varnish to use for protecting as well as beautifying any surface subjected to outdoor exposure. Specially recommended for boats, etc.

Because of its extreme durability, Wardspar is also much used inside the home for table tops, etc., that receive unusually hard wear.

Bright, glossy finish. Easy to apply.

| | | | |
|---------------------------|--------|-------------------------------|---------|
| E 8600—1-pint can | \$.43 | 575 E 8603—1-gallon can | \$ 2.98 |
| E 8601—1-quart can | .80 | 175 E 8604—5-gallon can | 14.45 |
| E 8602—½-gallon can | 1.55 | | |



Paint and Varnish Remover

Softens the old finish so that it can be removed easily with a scraping knife or steel wool.

Will not injure hands or discolor wood. Full directions furnished with each package. Easy to use, and will prove a help in removing old paint.

| | |
|---------------------------|--------|
| E 7796—1-pint can | \$.38 |
| E 7797—1-quart can | .65 |
| E 7798—½-gallon can | 1.18 |
| E 7799—1-gallon can | 2.15 |

Paint and Varnish Remover

Powdered Paint and Varnish Remover is active but slower than Liquid Remover. It is used for removing paint out of overalls, etc. Excellent for cleaning brushes.

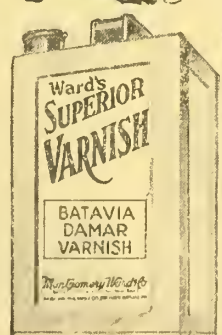
| | |
|----------------------------|-----|
| E 7805—1-lb. package | 18c |
| E 7806—5-lb. package | 80c |

Batavia Damar Varnish

An exceptionally beautiful pale Transparent Varnish for use over wall paper or white paint. Made from high-grade Batavia Damar Gum. For use in white enamel paint or over light colored paint or wall paper. Brilliant and full bodied. It flows and works well. Dries dust-proof in 6 to 8 hours, and hard in 36 hours.

| | |
|-------------------------------|--------|
| 75 E 8660—1-pint can | \$.41 |
| 575 E 8661—1-quart can | .78 |
| 575 E 8662—½-gallon can | 1.53 |
| 575 E 8663—1-gallon can | 2.95 |
| 175 E 8664—5-gallon can | 14.25 |

You'll need a good varnish brush to do the best kind of work. Page 755 shows you the right kind of brush to use.



Ward's Miro-Lite Interior Varnish

This is the varnish to use for woodwork. Brilliant glossy finish—makes woodwork look almost new. We recommend Miro-Lite Interior Varnish for the finest work. Use it on all floors, mouldings, and other woodwork—it develops the natural beauties of the different kinds of wood to the best possible advantage. Pale, transparent, easy flowing. Dries hard with a brilliant finish which greatly improves the appearance of any wood. May be washed frequently—will not blister or turn white. May be rubbed and polished if desired.

| | |
|-------------------------------|--------|
| 75 E 8610—1 pint | \$.45 |
| 575 E 8611—1 quart | .85 |
| 575 E 8612—½ gallon | 1.65 |
| 575 E 8613—1 gallon | 3.20 |
| 175 E 8614—5-gallon can | 15.50 |



Interior Spar Varnish

Like Wardspar, this varnish takes its name from the old style spar varnish used on sailing vessels. Our special interior spar varnish is extra tough and durable. Use it for all interior work, on doors, woodwork, etc.

| | |
|-------------------------------|--------|
| 75 E 8615—1-pint can | \$.32 |
| 575 E 8616—1-quart can | .55 |
| 575 E 8617—½-gallon can | 1.05 |
| 575 E 8618—1-gallon can | 1.98 |
| 175 E 8619—5-gallon can | 9.40 |



Extra Hard-Oil Varnish

Many of our customers still prefer the old-fashioned hard-oil varnish. And it certainly is good varnish, especially considering its low price. Use for interior finish. Works freely, dries quickly.

| | |
|-------------------------------|--------|
| 75 E 8625—1-pint can | \$.39 |
| 575 E 8626—1-quart can | .70 |
| 575 E 8627—½-gallon can | 1.33 |
| 575 E 8628—1-gallon can | 2.55 |
| 175 E 8629—5-gallon can | 12.25 |





Protects Porches From Wear

WARDWAY Porch and Deck Paint is a special outdoor paint that is hard-drying and long wearing. Saves porches and porch steps from showing signs of wear. Protects boat decks from decay.

The porch is the first part of your house the visitor or passer-by sees. Keep it freshly painted and it will be an indication of a well kept interior. You can't let your neighbors think the inside of your house is "run down," because the porch looks worn on account of exposure and hard wear. Use Wardway Porch and Deck Paint and make your porch inviting.

Good Paint saves its cost many times over by the saving it makes in repair bills and replacements. Porch steps, particularly, are quick to wear down and often spoil the looks of the whole house. Wardway Porch and Deck Paint postpones the time when your porch steps will have to be renewed. It protects them from weather and wear.

The same qualities make it excellent for use on decks and sides of boats, where it sheds the water and makes the boat last longer.

Anyone can use Wardway Porch and Deck Paint. It is smooth-flowing and easy-spreading. It covers thoroughly and has a bright, attractive, glossy finish. State color wanted.

| | | |
|----------------------|------------------------------|------------------|
| 196—Light Gray. | 194—Olive. | 193—Light Brown. |
| 192—Tan. | 197—Dark Gray. | 195—Dark Brown. |
| 575 E 7735—Quart. | | \$.68 |
| 575 E 7736—½ gallon. | | 1.32 |
| 575 E 7737—Gallon. | Ship. wt., per gal., 15 lbs. | 2.52 |

Ward's Rust-Preventing Screen Paint

A special hard-drying paint made for this particular purpose. Covers the wire thoroughly but does not clog the meshes. Ready to use—anyone can do a good job. Protects from rust—paint your screens and make them last longer. Black or Green.

| | | |
|---------------------|---------------------|--------|
| 75 E 7745—½ pint. | State Color Wanted. | \$.18 |
| 75 E 7746—1 pint. | | .27 |
| 75 E 7747—1 quart. | | .48 |
| 75 E 7748—1 gallon. | | 1.70 |



Painters' Time Saver

Prevents daubing the wall when painting or varnishing woodwork. Prevents daubing woodwork when painting the wall. Polished metal. Length, 8¾ inches. Ship. wt., 5 ounces.

75 E 852—Each. 15c

Painters' Cutlery



Putty Knives

For Prices on Standard Quality Commercial Putty in Tins, See Page 756.

Putty Knife, 75 E 840. 35c

Length of steel blade, 3½ inches. Width, 1½ inches. Shipping weight, 7 ounces.

Finest quality. Putty and Glazier's knife. Walnut handle securely riveted. Elastic bevel point blade.

Putty Knife, 75 E 841. 25c

Same as 75 E 840 except with square point and stiff blade.

Putty Knife, 75 E 842. 50c

Same as 75 E 841 except with square point and stiff blade.

Putty Knife, 75 E 843. 70c

Same as 75 E 842 except with square point and stiff blade.

Putty Knife, 75 E 844. 70c

Same as 75 E 843 except with square point and stiff blade.

Putty Knife, 75 E 845. 70c

Same as 75 E 844 except with square point and stiff blade.

Putty Knife, 75 E 846. 70c

Same as 75 E 845 except with square point and stiff blade.

Putty Knife, 75 E 847. 70c

Same as 75 E 846 except with square point and stiff blade.

Putty Knife, 75 E 848. 70c

Same as 75 E 847 except with square point and stiff blade.

Putty Knife, 75 E 849. 70c

Same as 75 E 848 except with square point and stiff blade.

Putty Knife, 75 E 850. 70c

Same as 75 E 849 except with square point and stiff blade.

Putty Knife, 75 E 851. 70c

Same as 75 E 850 except with square point and stiff blade.

Putty Knife, 75 E 852. 70c

Same as 75 E 851 except with square point and stiff blade.

Putty Knife, 75 E 853. 70c

Same as 75 E 852 except with square point and stiff blade.

Putty Knife, 75 E 854. 70c

Same as 75 E 853 except with square point and stiff blade.

Putty Knife, 75 E 855. 70c

Same as 75 E 854 except with square point and stiff blade.

Putty Knife, 75 E 856. 70c

Same as 75 E 855 except with square point and stiff blade.

Wall Scraper

Used for removing old paint or wall paper. Wt., 6 to 8 oz.

Art. No. Width of Blade Length of Blade Each

75 E 865 2½ in. 4 in. 35c

75 E 866 3 in. 4½ in. 50c

75 E 867 4 in. 4½ in. 70c

Painters' Dusters

Handy for dusting off mouldings, door caps, getting in corners, etc.

75 E 745—Round Duster. Selected stock. Black bristles. 4 in. long, 2½ in. wide. Ship. wt., 12 oz. \$1.15

75 E 744—All Hair Round Duster. 2½ in. wide. 3½ in. bristles. Ship. wt., 8 oz. 65c

75 E 746—Flat Duster. 4 in. long, 4½ in. wide. Ship. wt., 8 oz. \$1.28

Home Painters' Outfit

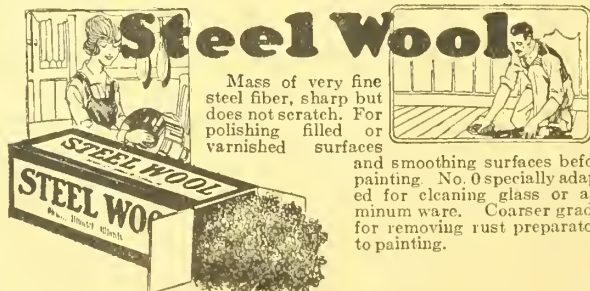


\$2.95 Complete Outfit

Here is a practical assortment of brushes and tools which will make painting a success. 475 E 743—Outfit \$2.95

Outfit No. 475 E 743 consists of:
 1 Flat Sash Brush. Width, ¾ in. 1½ in. long. Black Chinese bristles.
 1 Flat Sash Brush. Width, 1 in. 1½ in. long. Black Chinese bristles.
 1 Rubberset Paint Brush. Black Chinese bristles. Width, 3½ in.
 1 Rubberset Paint Brush. Black Chinese bristles. Width, 3 in.
 1 Pint Pot Hook; 5 lbs. Putty; 1 Steel Putty Knife; 1 Iron Paint Paddle; ½ lb. Glaziers' Points.

Steel Wool



Mass of very fine steel fiber, sharp but does not scratch. For polishing filled or varnished surfaces

and smoothing surfaces before painting. No. 0 specially adapted for cleaning glass or aluminum ware. Coarser grades for removing rust preparatory to painting.

| | | | |
|-----------|--|--------------|-----|
| 75 E 8285 | No. 0, very fine. (Equal to 00 sandpaper). | Per lb. | 82c |
| 75 E 8286 | No. 0, in 2½ oz. package | | 9c |
| 75 E 8287 | No. 1, coarser. (Equal to 0 sandpaper). | Per lb. | 65c |
| 75 E 8288 | No. 1, 2½-oz. pkg. | | 9c |
| 75 E 8289 | No. 3, (Equal to 1½ and 2 sandpaper). | Per lb. | 48c |
| 75 E 8290 | No. 3, in 2½-oz. package | | 9c |
| 75 E 8291 | Steel Shavings, for rougher work. | Per lb. | 47c |

Keeps Floors Looking New

WARDWAY Inside Floor Paint renews old floors keeps new floors looking new. Make your shine and protect them from wear by using special, long-wearing paint.

This is the ideal paint for kitchen, pantry, and bedroom floors. It durable and withstands frequent washings and scrubbing. It resists scratches and heel marks. It is the paint to use in halls, vestibule where the floor is subjected to steady hard wear.

Attractive, popular colors make it a splendid beautifier for the home. Bright, glossy finish brightens the whole room—you will be proud appearance on any floor. Ready mixed ready to apply. 1 gallon will 200-250 square feet 2 coats. State Color Wanted.

| | | |
|-----------------|------------------|------|
| 155—Medium Drab | 154—Light Yellow | 148— |
| 150—Red | 151—Slate | 152— |
| 156—Tan | 149—Light Brown | |

Sizes and Prices

| | |
|----------------------|--|
| 575 E 8100—1 quart. | |
| 575 E 8101—½ gallon. | |
| 575 E 8102—1 gallon. | |

Shipping weight per gallon 15 pounds.

Ward's Stainless Floor Oil

Brings out the color of the wood and keeps down dust. Especially mended for kitchens. Also much used on halls, etc. Apply sparingly cloth, or by sprinkling on, then brushing or rubbing in. 1 gallon is su for about 600 sq. ft. of surface. Ship. wt., per gal., 9 pounds.

| | | |
|------------|-------------------------------|--|
| 275 E 8266 | 50-gallon barrel, per gallon. | |
| 275 E 8265 | 25-gallon barrel, per gallon. | |
| 175 E 8233 | 5-gallon can, per gallon. | |
| 575 E 8232 | 1 gallon. | |
| 575 E 8231 | ½ gallon. | |
| 375 E 8230 | 1 quart. | |

Barrels shipped from Chicago.

Ward's High Grade Glass Cutters

Glaziers' Diamonds

Hardwood Handle—Nickel-plated mounting. Ship. wt., each, 4 ounces.

75 E 940—No. 5 Standard. For all glass, except plate. \$7.40

275 E 941—No. 7 Plate. For all glass including plate. \$9.50

Price, each.

Magazine Cutters

Recommended for service and long wear. When one gets dull, position a fresh one class cutter. Ship. w

75 E 901—Price, each.

Glass Cutter

Iron handle fitted with patent hardened steel wheel.

75 E 915—Ship. wt., 2 oz.

Each. 10c

Special magazine g

ter with 7 interc

cutters. One ready

other 6 kept in han

needed

75 E 918—Ship. w

2 oz. Each.

Zinc

Glaziers' Points

Illustration actual size.

75 E 950—

¾-lb. paper.

75 E 951—1

lb. paper.

75 E 952—1

lb. paper.

75 E 953—1

lb. paper.

75 E 954—1

lb. paper.

75 E 955—1

lb. paper.

75 E 956—1

lb. paper.

75 E 957—1

lb. paper.

75 E 958—1

lb. paper.

Wire Cleaning Brushes

75 E 764

Used with scraping knife for removing old paint

painting or varnishing

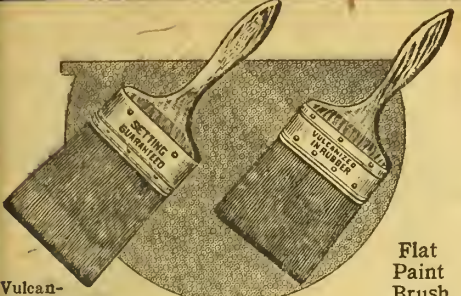
75 E 760—Straight Back. Size, 2½x7 inch. 1½-lb.

bristles. Wt., 16 oz.

75 E 764—"Shoe Handle" Size, 1½x5 inch. 1½-lb.

handle, 10 in. 1½ in. bristles. Ship. wt., 5 ounces

Guaranteed Brushes that Stand the Wear



Flat Paint Brush
Vulcanized in Rubber
A high quality wall brush with extra long full black Chinese bristles, uniformly tapered. Bristles vulcanized in rubber to set them firm and keep them from loosening. Nickel-plated ferrule. Ship. wt., 8 to 12 ounces.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|--------|
| 75 E 540 | 3 | 3 1/2 | \$1.80 |
| 75 E 541 | 3 1/2 | 4 | 2.60 |
| 75 E 542 | 4 | 4 1/2 | 3.75 |
| 75 E 543 | 4 1/2 | 5 | 4.50 |



The Painters' Favorite
The Practical Brush for Outside or Inside Painting
Built for long service. Black Chinese bristles, four inches long, vulcanized in rubber to set them firm and keep them from loosening or coming out. Nickel-plated ferrule. Width, 4 inches. Ship. wt., 12 ounces.

| | | |
|----------|--------------------|--------|
| 75 E 701 | 4-in. bristles | \$1.88 |
| 75 E 704 | 3 3/4-in. bristles | 1.70 |



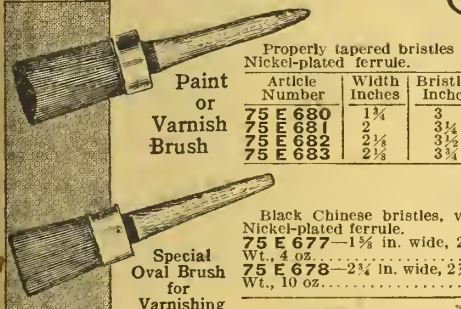
Black Chinese Bristles
A fair brush for odd jobs. Good quality black Chinese bristles, tinned ferrule. Bristles set in cement. Shipping weight, each 5 to 10 ounces.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|------|
| 75 E 559 | 2 1/2 | 2 | 20c |
| 75 E 560 | 3 | 2 1/2 | 25c |
| 75 E 561 | 3 1/2 | 3 | 30c |
| 75 E 562 | 4 | 3 1/2 | 35c |
| 75 E 563 | 4 1/2 | 4 | 40c |
| 75 E 564 | 5 | 4 1/2 | 45c |

Good "Stucco" Brush
Select black Chinese bristles vulcanized in rubber. Nickel-plated one-piece ferrule.
For general painting and stucco work. Ship. wt., each, 9 to 12 ounces.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|--------|
| 75 E 583 | 3 1/2 | 3 1/2 | \$1.90 |
| 75 E 584 | 4 | 4 | 2.28 |
| 75 E 585 | 4 1/2 | 4 1/2 | 2.94 |

OVAL BRUSHES VARNISH BRUSHES KALSOMINE BRUSHES



Paint or Varnish Brush
Properly tapered bristles vulcanized in rubber. Nickel-plated ferrule.

| Article Number | Width In. | Bristles In. | Weight Ounces | Each |
|----------------|-----------|--------------|---------------|--------|
| 75 E 680 | 1 1/2 | 3 | 4 | \$.85 |
| 75 E 681 | 2 | 3 1/2 | 5 | 1.28 |
| 75 E 682 | 2 1/2 | 3 3/4 | 6 | 1.52 |
| 75 E 683 | 2 3/4 | 3 3/4 | 6 | 1.95 |

Special Oval Brush for Varnishing
Black Chinese bristles, vulcanized in rubber. Nickel-plated ferrule.

| | | |
|----------|-------------------------------------|-----|
| 75 E 677 | 1 1/2 in. wide, 1 1/2-in. bristles. | 40c |
| 75 E 678 | 2 1/4 in. wide, 2 1/4-in. bristles. | 59c |

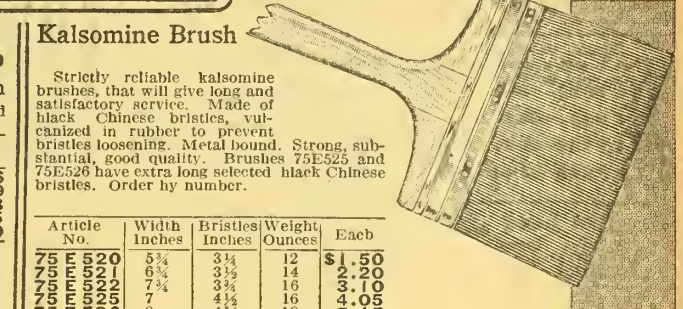


Varnish Brush
Black Chinese bristles. Vulcanized in rubber. Ship. wt., 3 to 8 ounces.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|--------|
| 75 E 651 | 1 1/2 | 2 1/2 | \$.36 |
| 75 E 652 | 2 | 2 1/2 | .49 |
| 75 E 653 | 2 1/2 | 2 1/2 | .73 |
| 75 E 654 | 3 | 2 1/2 | .85 |
| 75 E 655 | 3 1/2 | 3 | 1.30 |

Dandy Brush
Black Chinese bristles, set in cement. Ship. wt., 2 to 6 ounces.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|------|
| 75 E 671 | 1 1/2 | 1 1/2 | 15c |
| 75 E 672 | 2 | 1 1/2 | 21c |
| 75 E 673 | 2 1/2 | 2 | 27c |
| 75 E 674 | 3 | 2 1/2 | 36c |
| 75 E 675 | 3 1/2 | 3 | 46c |



Kalsomine Brush
Strictly reliable kalsomine brushes, that will give long and satisfactory service. Made of black Chinese bristles, vulcanized in rubber to prevent bristles loosening. Metal bound. Strong, substantial, good quality. Brushes 75E525 and 75E526 have extra long selected black Chinese bristles. Order by number.

| Article No. | Width In. | Bristles In. | Weight Ounces | Each |
|-------------|-----------|--------------|---------------|--------|
| 75 E 520 | 5 1/2 | 3 1/2 | 12 | \$1.50 |
| 75 E 521 | 6 1/2 | 3 1/2 | 14 | 2.20 |
| 75 E 522 | 7 1/2 | 3 1/2 | 16 | 3.10 |
| 75 E 525 | 7 | 4 1/2 | 16 | 4.05 |
| 75 E 526 | 8 | 4 1/2 | 18 | 5.15 |



Oval Sash or Trim Brush
75 E 510—Black Chinese bristles, set in cement. 1/4 in. wide, 1 1/2-in. bristles. Wt., 2 oz. 18c
Larger sizes of 75 E 510
75 E 511—1 in. wide, 1 1/2-in. bristles. 20c
75 E 512—1 1/4 in. wide, 2 1/2-in. bristles. 28c
75 E 513—1 1/2 in. wide, 2 3/4-in. bristles. 35c

Bronzing Brush
Soft goat hair. For bronzing, enameling radiators, etc. About 10 in. long. Wt., 2 oz.
75 E 604—1 in. 1 1/4 in. 20c
75 E 605—1 1/2 in. 1 1/4 in. 28c
75 E 606—2 in. 2 in. 39c

Stencil Brush
Black Chinese bristles set in rubber. A genuine Rubberset brush.

| Article Number | Diam. In. | Brist. In. | Wt. Oz. | Each |
|----------------|-----------|------------|---------|------|
| 75 E 731 | 1 | 1 1/2 | 2 | 38c |
| 75 E 732 | 1 1/4 | 1 1/2 | 3 | 60c |
| 75 E 733 | 1 1/2 | 1 1/2 | 4 | 71c |



Badger Hair Brush
Made of selected badger hair with just enough fine white French bristles for proper support. Chiseled. Double thick. Vulcanized in rubber. Nickel-plated ferrule. Wt. 3 oz.

| Article No. | Width | Lgt. Hair | Each |
|-------------|-----------|-----------|--------|
| 75 E 656 | 1 1/2 in. | 1 1/2 in. | \$1.12 |
| 75 E 657 | 2 in. | 1 1/2 in. | 1.52 |
| 75 E 658 | 2 1/2 in. | 1 1/2 in. | 2.10 |
| 75 E 659 | 3 in. | 2 in. | 2.10 |

Fitch Flowing Brush
Double thick fitch hair, extra fine and chiseled. Solidly set in cement. Weight, each about 3 oz.

| Article No. | Width | Lgt. Hair | Each |
|-------------|-----------|-----------|------|
| 75 E 665 | 1 in. | 1 1/2 in. | 43c |
| 75 E 666 | 1 1/2 in. | 1 1/2 in. | 52c |
| 75 E 667 | 2 in. | 1 1/2 in. | 63c |
| 75 E 668 | 2 1/2 in. | 1 1/2 in. | 83c |
| 75 E 669 | 3 in. | 2 in. | 96c |



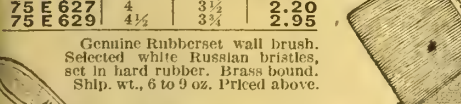
Whitewash Brushes
75 E 467—469
Gray and black mixed bristles and hair. Solidly set in cement. Metal bound. Brushes 75E468 and 75E469 same as 75E467, except larger.

| Article Number | Width | Length Bristles | Ship. Weight | Price |
|----------------|-----------|-----------------|--------------|-------|
| 75 E 467 | 5 1/2 in. | 3 in. | 10 oz. | 50c |
| 75 E 468 | 6 1/2 in. | 3 in. | 10 oz. | 60c |
| 75 E 469 | 7 1/2 in. | 3 in. | 10 oz. | 75c |

75 E 490—491
Black Chinese bristles vulcanized in rubber to keep them from loosening. Metal bound. Brush 75E491 same as 75E490, except larger size.

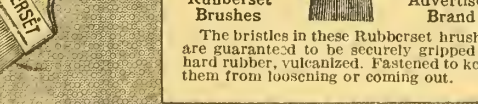
| Article No. | Width | Length Bristles | Ship. Wt. | Price |
|-------------|-------|-----------------|-----------|--------|
| 75 E 490 | 7 in. | 2 1/2 in. | 10 oz. | \$1.10 |
| 75 E 491 | 8 in. | 2 1/2 in. | 12 oz. | 1.42 |

RUBBERSET BRUSHES



Wall Brush
Genuine Rubberset wall brush. Selected white Russian bristles, set in hard rubber. Brass bound. Ship. wt., 6 to 9 oz. Priced above.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|--------|
| 75 E 623 | 3 | 3 | \$1.10 |
| 75 E 624 | 3 1/2 | 3 1/2 | 1.85 |
| 75 E 625 | 4 | 3 1/2 | 2.20 |
| 75 E 629 | 4 1/2 | 3 1/2 | 2.95 |



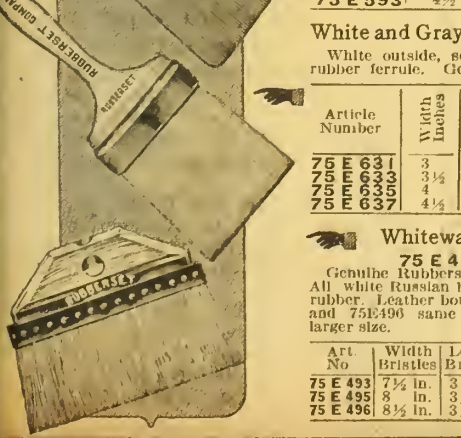
Genuine Rubberset Brushes
The bristles in these Rubberset brushes are guaranteed to be securely gripped in hard rubber, vulcanized. Fastened to keep them from loosening or coming out.

The Advertised Brand



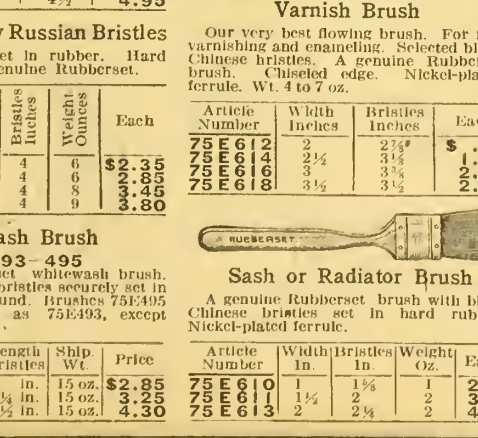
Wall Brush
Guaranteed Rubberset—black Chinese bristles set in hard rubber to keep them from loosening. Nickel-plated ferrule. Ship. wt., 6 to 8 oz. Priced above.

| Article Number | Width In. | Bristles In. | Each |
|----------------|-----------|--------------|--------|
| 75 E 532 | 3 | 3 1/2 | \$1.80 |
| 75 E 533 | 3 1/2 | 4 | 2.35 |
| 75 E 534 | 4 | 4 1/2 | 3.78 |



Leather Bound Paint Brush
Long, full, springy stock set in hard rubber and leather bound.

| Article Number | Width In. | Bristles In. | Price Each |
|----------------|-----------|--------------|------------|
| 75 E 589 | 3 1/2 | 4 1/2 | \$3.85 |
| 75 E 591 | 4 | 4 1/2 | 4.65 |
| 75 E 593 | 4 1/2 | 4 1/2 | 4.95 |



White and Gray Russian Bristles
White outside, set in rubber. Hard rubber ferrule. Genuine Rubberset.

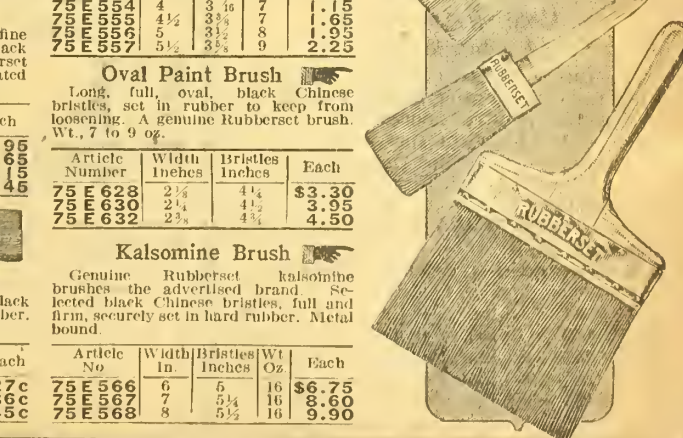
| Article Number | Width In. | Bristles In. | Weight Ounces | Each |
|----------------|-----------|--------------|---------------|--------|
| 75 E 603 | 3 | 4 | 6 | \$2.35 |
| 75 E 604 | 3 1/2 | 4 | 6 | 2.65 |
| 75 E 605 | 4 | 4 | 8 | 3.25 |
| 75 E 606 | 4 1/2 | 4 | 9 | 3.60 |

Whitewash Brush
75 E 493—495
Genuine Rubberset whitewash brush. All white Russian bristles securely set in rubber. Leather bound. Brushes 75E495 and 75E496 same as 75E493, except larger size.

| Art. No. | Width Bristles | Length Bristles | Ship. Wt. | Price |
|----------|----------------|-----------------|-----------|--------|
| 75 E 493 | 7 1/2 in. | 3 in. | 15 oz. | \$2.85 |
| 75 E 495 | 8 in. | 3 1/2 in. | 15 oz. | 3.25 |
| 75 E 496 | 8 1/2 in. | 3 1/2 in. | 15 oz. | 4.30 |

Sash or Radiator Brush
A genuine Rubberset brush with black Chinese bristles set in hard rubber. Nickel-plated ferrule.

| Article Number | Width In. | Bristles In. | Weight Oz. | Each |
|----------------|-----------|--------------|------------|------|
| 75 E 610 | 1 | 1 1/2 | 1 | 27c |
| 75 E 611 | 1 1/2 | 2 | 2 | 35c |
| 75 E 613 | 2 | 2 1/2 | 2 | 45c |



Kalsomine Brush
Genuine Rubberset kalsomine brushes, the advertised brand. Selected black Chinese bristles, full and firm, securely set in hard rubber. Metal bound.

| Article No. | Width In. | Bristles In. | Wt. Oz. | Each |
|-------------|-----------|--------------|---------|--------|
| 75 E 566 | 6 | 6 | 16 | \$6.75 |
| 75 E 567 | 7 | 6 1/2 | 16 | 8.60 |
| 75 E 568 | 8 | 6 1/2 | 16 | 9.90 |

Reliable Paint Materials

NOTICE:—Although we list Ground Colors, Colors in Oil, etc., in this catalog, we can not recommend their use by anyone but an experienced, professional painter.

For best work as well as lowest cost—use the paints manufactured and guaranteed by Ward's own paint factory. See page 746-748.

Linseed Oil and Turpentine

On account of market changes it is impossible to quote prices in this catalog. Write us for current prices, or refer to our latest Grocery Catalog, where these oils are quoted.

Tinting Colors



Finely ground in oil. Used for tinting paints. Be very careful in using them, not too add to much at first. The Lamp Black is used for deepening colors.

1-lb. can each.

| | | |
|-----------|------------------------|-----|
| 75 E 7976 | Drop Black | 35c |
| 75 E 7978 | Ivory Black | 35c |
| 75 E 7980 | Coach Black | 35c |
| 75 E 7982 | Lamp Black | 35c |
| 75 E 7986 | Ultramarine Blue | 47c |
| 75 E 7988 | Italian Sienna (raw) | 35c |
| 75 E 7989 | Italian Sienna (burnt) | 35c |
| 75 E 7990 | Turkey Umber (raw) | 35c |
| 75 E 7991 | Turkey Umber (burnt) | 35c |
| 75 E 7994 | Chrome Green (light) | 35c |
| 75 E 7995 | Chrome Green (medium) | 35c |
| 75 E 7996 | Chrome Green (dark) | 35c |
| 75 E 7998 | Tuscan Red | 35c |
| 75 E 8000 | English Venetian Red | 35c |
| 75 E 8002 | Indian Red | 35c |
| 75 E 8003 | Chrome Yellow (light) | 35c |
| 75 E 8005 | Chrome Yellow (medium) | 35c |
| 75 E 8006 | Chrome Yellow (dark) | 35c |
| 75 E 8008 | French Yellow Ochre | 35c |
| 75 E 8010 | Red Lead | 35c |
| 75 E 8012 | Permanent Red | 35c |
| 75 E 8014 | Flat Brick Red | 20c |

Graining Colors in Oil

Paste form. Mix with 1 part boiled linseed oil and 2 parts turpentine. State Color wanted: Mahogany, Cherry, Walnut, Light Oak or Dark Oak.

75 E 8015—1-lb. can. \$.34
75 E 8016—5-lb. can. 1.65

Superfine Coach Colors



Ground in Japan. These colors are ground in Japan. Dry quickly. Used also to tint varnish. Put up in 1-lb. cans. Ship. wt., 1 1/2 lbs.

1-lb. can each.

| | | |
|-----------|-------------------------|-----|
| 75 E 8300 | Extra Fine Ivory Black | 50c |
| 75 E 8301 | Fine Ivory Black | 45c |
| 75 E 8302 | Drop Black | 40c |
| 75 E 8304 | Lamp Black | 40c |
| 75 E 8306 | Ultramarine Blue | 65c |
| 75 E 8307 | Brewster Green (light) | 65c |
| 75 E 8308 | Brewster Green (medium) | 65c |
| 75 E 8309 | Brewster Green (dark) | 65c |
| 75 E 8310 | Carriage Green (light) | 65c |
| 75 E 8311 | Carriage Green (medium) | 65c |
| 75 E 8312 | Carriage Green (dark) | 65c |
| 75 E 8313 | Indian Red | 45c |
| 75 E 8314 | Tuscan Red | 50c |
| 75 E 8315 | Burnt Sienna, Italian | 50c |
| 75 E 8316 | Raw Sienna, Italian | 50c |
| 75 E 8317 | Burnt Umber, Turkey | 50c |
| 75 E 8318 | Raw Umber, Turkey | 50c |
| 75 E 8319 | Chrome Yellow (medium) | 56c |
| 75 E 8320 | Chrome Yellow (dark) | 56c |

Special Dry Colors



Used for tinting. Sometimes used for painting by mixing with linseed oil. This method is not recommended unless the mixture is put through a paint mill. Use our Guaranteed Coverall or Wardway Paints and be sure of good results.

| | | |
|-----------|-------------------------------|-------------|
| 75 E 7882 | Lamp Black | Per lb. 31c |
| 75 E 7883 | Raw Umber | 10c |
| 75 E 7884 | Burnt Umber | 10c |
| 75 E 7885 | Raw Sienna | 10c |
| 75 E 7886 | Burnt Sienna | 10c |
| 75 E 7887 | American Venetian Red | 6c |
| 75 E 7888 | Imperial English Venetian Red | 9c |
| 75 E 7889 | Ultramarine Blue | 40c |
| 75 E 7890 | Chrome Green | 31c |
| 75 E 7891 | Yellow Ochre | 12c |
| 75 E 7892 | Imported Yellow Ochre | 12c |
| 75 E 7893 | Red Oxide Iron Paint | 6c |
| 75 E 7894 | Dark Red Iron Paint | 6c |
| 75 E 7895 | Prince's Mineral, Red Brown | 6c |

Venetian Red

Ground in Oil

For average use mix 1 gal. linseed oil to 12 lbs. Venetian Red.
75 E 7853—12 1/2 lb. 12c
75 E 7854—25 lb. 12c
75 E 7855—100 lb. 11c

Yellow Ochre

Ground in Oil

For average use mix 1 gal. linseed oil to 12 lbs. Yellow Ochre.
75 E 7857—12 1/2 lbs. 12c
75 E 7858—25 lbs. 12c
75 E 7859—100 lbs. 11c

Strictly Pure White Lead

For ordinary outside painting, where the building has been painted before, for final coat use 4 gallons of Pure Raw Linseed Oil, 1 pint of Pure Spirits of Turpentine and 1 pint of our Turpentine Japan Dryer (listed below) to 100 lbs. of White Lead in Oil. This makes 7 gallons of paint which covers about 250 sq. ft. 2 coats, per gallon. Unless a thoroughly experienced painter does the work, it is best to use a ready mixed paint such as our Coverall or Wardway House Paint, both of which are manufactured of all the materials necessary to make a long-wearing, weather-resisting paint. One and five pounds in cans—larger sizes in metal kegs. Prices Subject to Market Change.

| | | | |
|---------------------|----------|------------------------|----------|
| 175 E 7825—100 lbs. | 13c | 475 E 7828—12 1/2 lbs. | 13 1/2 c |
| Per lb. | | Per lb. | |
| 175 E 7826—50 lbs. | 13 1/2 c | 575 E 7824—5 lbs. | 18 c |
| Per lb. | | Per lb. | |
| 475 E 7827—25 lbs. | 13 1/2 c | 575 E 7823—1 lb. | 20 c |
| Per lb. | | Per lb. | |

Special Brand Lead

This is not a pure lead, but will give good service.

| | |
|----------------------------|----------|
| 175 E 7832—100-lb. keg. | 11c |
| Per lb. | |
| 175 E 7831—50-lb. keg. | 11 1/2 c |
| Per lb. | |
| 475 E 7830—25-lb. keg. | 11 1/2 c |
| Per lb. | |
| 475 E 7829—12 1/2-lb. keg. | 11 1/2 c |
| Per lb. | |

Zinc in Oil

This is a pure white zinc ground in oil.

| | |
|----------------------------|-----|
| 475 E 7838—12 1/2-lb. can. | 31c |
| Per lb. | |
| 475 E 7839—25-lb. can. | 30c |
| Per lb. | |
| 575 E 7840—1-lb. can. | 35c |
| Per lb. | |
| 575 E 7841—5-lb. can. | 34c |
| Per lb. | |

Dry Red Lead Commonly used as a first-coater and rust-preventive on metal work. Mix 8 to 12 pounds with 1 gallon linseed oil.
575 E 7903—1 lb. 20c
575 E 7904—5 lb. per lb. 19c
475 E 7905—25 lb. per lb. 18c
175 E 7906—50 lb. per lb. 16c

Plaster Paris

Used to fill holes and imperfections in plastered wall, before painting or papering.

| | |
|--------------------------------|----|
| 175 E 7913—250-lb. barrel. | 3c |
| Per lb. | |
| 575 E 7914—Smaller Quantities. | 5c |

Gilders' Whiting

Bolted whiting. Fine quality.

| | |
|--------------------------------|---------|
| 175 E 7917—Barrel (400 lbs.) | 3c |
| Per lb. | |
| 175 E 7918—Drums (100 lbs.) | 3 1/2 c |
| Per lb. | |
| 575 E 7919—Smaller quantities. | 6c |
| Per lb. | |

Denatured Alcohol Shellac

Subject to Market Changes

Made from pure gum shellacs, cut 4 lbs. of the gum to each gallon of denatured alcohol. One gallon will cover from 300 to 400 sq. ft., one coat. Ship. wt., per gal., 10 1/2 pounds.

| | |
|---------------------------------|--------|
| Used where no color is desired. | \$.95 |
| 75 E 8676—Pint can. | |
| 575 E 8677—Quart can. | 1.84 |
| 575 E 8678—1/2 gallon can. | 3.55 |
| 575 E 8679—1 gallon can. | 6.70 |

White Shellac Used the same as white shellac, except on darker surfaces, such as oak. Also used for coating knots and sappy spots before painting.
75 E 8680—Pint can. \$.90
575 E 8682—1/2 gal. can. \$3.35
575 E 8681—Quart can. 1.74
575 E 8683—1 gal. can. 6.30

Substitute Shellac

Substitute shellac is made to do the work of pure shellac at a cheaper cost. Manufactured from a hard gum cut in denatured alcohol and for most purposes produces results equal to genuine shellac. Use same as shellac. Ship. wt., per gal., 10 1/2 pounds.

| | | | |
|-------------------|-----|---------------------|--------|
| 75 E 8740—Pint. | 35c | 575 E 8742—1/2 gal. | \$1.15 |
| 575 E 8741—Quart. | 60c | 575 E 8743—Gallon. | 2.20 |
| 75 E 8744—Pint. | 34c | 575 E 8746—1/2 gal. | 1.10 |
| 575 E 8745—Quart. | 58c | 575 E 8747—Gallon. | 2.15 |

Hardwood Paste Filler

A high-grade filler for closing the pores on hard or open-grained woods such as oak or ash before varnishing. 10 lbs. fills about 450 sq. ft. Colors: light, dark and golden oak. State color wanted.

| | |
|------------------------|--------|
| 75 E 8210—1-lb. can. | \$.15 |
| 575 E 8211—5-lb. can. | .73 |
| 575 E 8212—10-lb. can. | 1.40 |
| 575 E 8213—25-lb. can. | 2.95 |

Liquid Wood Filler

For use on soft or close-grained wood and on hardwood after treating with paste filler. 1 gallon will fill about 500 sq. ft. Ship. wt., per gal., 12 lbs.
75 E 8218—Qt. can. \$.54
575 E 8219—1/2-gallon can. .93
575 E 8220—1-gallon can. 1.73
175 E 8221—5-gallon can. 8.15

Crack and Crevice Filler

An elastic compound for filling cracks in floors, woodwork, etc., before painting or varnishing. Will not shrink or crumble. Just the thing for filling cracks and uneven places on plastered walls.

| | |
|-----------------------|--------|
| 75 E 8228—1-lb. can. | \$.23 |
| 475 E 8229—5-lb. can. | 1.10 |

Cold Water Paint

For Interior Use

For painting closets, pantries, etc. Also much used for painting interiors of dairies, workshops, poultry houses, etc. Apply either with a brush or sprayer.

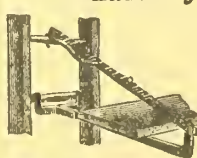
Pure white. Will not rub. Fire retardant, approved by Fire Underwriters' Laboratories.

Mixed with water, 5 lbs. will cover about 400 sq. ft.

Not intended to take the place of oil paint.

| | |
|---------------------|-----------------|
| 575 E 8447—5 lbs. | Per lb. 8c |
| 575 E 8448—10 lbs. | Per lb. 7 1/2 c |
| 475 E 8449—50 lbs. | Per lb. 6 1/2 c |
| 175 E 8450—100 lbs. | Per lb. 6c |
| 275 E 8451—350 lbs. | Per lb. 5 1/2 c |

Ladder Jack



\$3.35

Made of best grade steel. The more you put on it the tighter it draws. Shipping weight, per pair, 20 pounds.

175 E 970—Price, per pair. \$3.35

For Painters' Ladders
See Page 691

Climax

Paint Sprayer

Can be used not only for spraying flat color paint and oils, but can also be used for all classes of spraying, such as spraying fruits, bushes, etc.

Pump cylinder is seamless brass tubing, diameter 1 1/2 in. Brass ball valves and seats. Brass Air Chamber. Tank is 6-gal. size of heavy galvanized steel.

Regularly equipped with 10 feet of 1/2 inch discharge hose. Shut-off cock; follower-wrench and spray nozzle. Ship. wt. 30 lbs.

187 E 6060—Sprayer complete. \$11.95
187 E 6066—New Bordeaux Nozzle. .72

Old Dutch White

Ground in Oil

Used instead of pure white lead, is white and being ground very fine in oil, has greater covering capacity. More economical. Much used in hospitals and public buildings. Also fine as an undercoat for enamels.

Add 3 gal. pure raw linseed oil, 1 qt. turpentine and 1 pt. Turpentine Japan Dryer to each 100 lbs. of Old Dutch White. For flat finish, reverse quantities of oil and turpentine.

| | |
|------------------------|------------------|
| 175 E 8020—100 lbs. | Per lb. 12c |
| 175 E 8021—50 lbs. | Per lb. 12 1/2 c |
| 475 E 8022—25 lbs. | Per lb. 13c |
| 475 E 8023—12 1/2 lbs. | Per lb. 13 1/2 c |
| 575 E 8024—5 lbs. | Per lb. 15c |



Reliable Glues—Flake and Ground

Ground glue is a clear flake glue, amber in color and ground to dissolve more quickly. An extra quality for kalsominers' use, also may be used for all general purposes.

Amber Flake is a very fine quality flake glue for decorators' use, and also used for ordinary gluing.

White Cabinet Flake is a pure hide glue for cabinet work, also for frescoing. Superior Flake is a hide glue, pale amber in color and used for finest furniture work. Transparent Flake is a thin cut translucent gelatin glue.

Carpenter's Ribbon Glue is a bone and hide glue, amber in color and has exceptional tensile strength.

| | |
|--|-----|
| 575 E 8560—Ground Glue, per lb. | 20c |
| 175 E 8562—Ground Glue, 200-lb. bbl. per lb. | 18c |
| 575 E 8563—Amber Flake, per lb. | 22c |
| 175 E 8565—Amber Flake, 200-lb. bbl. per lb. | 20c |
| 575 E 8566—White Cabinet Flake, per lb. | 48c |
| 575 E 8570—Superior Flake Glue, per lb. | 32c |
| 175 E 8572—Superior Flake Glue, 200-lb. bbl. per lb. | 30c |
| 575 E 8573—Transparent Flake Glue, per lb. | 52c |
| 575 E 8576—Carpenter's Ribbon Glue, per lb. | 50c |

Superior Liquid Glue

Has unusual strength, prepared ready for use. No disagreeable odor. Will not sour or mould. Ship. wt. pint, 2 lbs. bottle.

| | |
|------------------------|-----|
| 75 E 8580—Ounce | 10c |
| 75 E 8581—1/2-pt. can. | 30c |
| 575 E 8582—Pint can. | 50c |
| 575 E 8583—Quart can | 85c |

Special Mending Glue

Transparent, waterproof. Mends wood, glass, metal, china, marble, leather, cloth, rubber, etc. perfectly. Makes strong permanent joints.

| | |
|--|-----|
| 75 E 8585—1 in collapsible tubes 1 1/2 x 1/2 inches. | 24c |
|--|-----|

Double Glue Pots



Made of iron. Inner vessel has porcelain-enamel lining. 3 sizes. Wt. 4 to 9 lbs.
575 E 784—1/2 pint. \$.90
575 E 785—1 pint. 1.10
575 E 786—Quart. 1.35

Substitute for Turpentine

This turpentine substitute is used for thinning oil paints, enamels, and other interior finishes. It causes more rapid drying. It serves the same purposes as pure turpentine, giving excellent results, and is much cheaper.

Priming coats thinned with our turpentine substitute penetrate the wood, preparing a good surface for the finishing coats of paint.

Use this substitute the same as the pure turpentine. Get the same pleasing results and save money at the same time.

| | |
|-------------------------------------|-----|
| 575 E 7694—1-quart can. | 27c |
| 575 E 7695—1-gallon can. | 75c |
| 175 E 7696—5-gallon can. | 70c |
| 275 E 7698—25-gallon wooden barrel. | 65c |
| 275 E 7699—50-gallon wooden barrel. | 60c |

Turpentine Japan Dryer

Excellent hinder and strong dryer. Mixes readily and does not injure the life of the paint.

| | |
|---------------------|--------|
| 75 E 8720—Pint. | \$.30 |
| 575 E 8721—Quart. | .45 |
| 575 E 8722—1/2 gal. | .85 |
| 575 E 8723—1 gal. | 1.60 |
| 175 E 8724—5 gal. | 7.75 |

Fill-Tite

(A Water Putty)

A mineral combination in powder form for filling cracks and imperfections in wood, plaster, concrete or metal. Mix with water. Dries hard as rock in 15 minutes.

| | |
|-----------------------|-----|
| 75 E 8223—1-lb. pkg. | 11c |
| 575 E 8224—2-lb. pkg. | 20c |
| 575 E 8225—5-lb. pkg. | 50c |

Putty in Tins

Ready-to-use commercial putty for painters and glaziers. Standard quality. Packed in airtight tins to keep it fresh and moist.

| | |
|------------------------|-----|
| 575 E 7850—10-lb. tin. | 75c |
| 575 E 7851—5-lb. tin. | 40c |

Powdered Pumice Stone

Fine, grad. English Powdered Pumice Stone. Used with rubbing oil or water for rubbing down varnished surfaces, preparatory to polishing.

| | |
|------------------------|------|
| 575 E 7875—Per lb. | 12c |
| 475 E 7876—25-lb. pkg. | 1.95 |

Rubbing Oil

Dip rubbing felt into this oil then into pumice stone. For rubbing varnished or enameled surfaces to a polish finish.

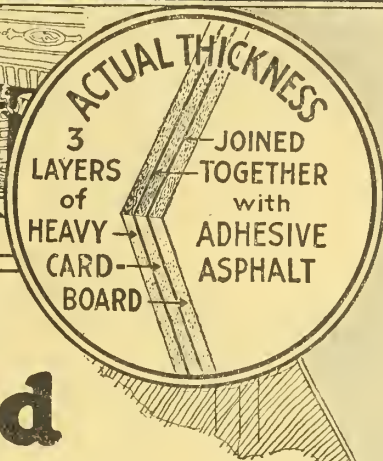
| | |
|-------------------|-----|
| 75 E 8282—Qt. | .3 |
| 575 E 8283—Gal. | .8 |
| 175 E 8284—5 Gal. | 3.7 |

Rubbing Felt A special grade of felt used with Rubbing Oil and Pumice Stone in polishing.

| | |
|--------------------------------|----------------------|
| 75 E 8270—Hard Felt, 3 in. sq. | Ship. wt., 4 oz. 48c |
| 75 E 8280—Soft Felt, 6 in. sq. | Ship. wt., 2 oz. 36c |



Easy to
Handle and
Economical



Ward's Superb Fiber Wall Board

USE Superb Wall Board for walls, ceilings and partitions in new or old homes—use it anywhere in place of lath and plaster. Long convenient lengths reach from floor to ceilings. Easy to handle—you can do the job yourself. Ready for painting or kalsomining, but further finish is not necessary unless desired.

Tough—Pliable—Permanent

The lasting quality of our Superb Wall Board is largely due to the fact that it is simply a form of lumber. It is knotless, crackless, manufactured under conditions that can be sawed and nailed the same as any other kind you might purchase.

The logs from which this board is made are first ground into pulp which in turn is rolled into long sheets of tough heavy fiber board. Three layers of this board are cemented together with adhesive asphalt and cut into large flawless sheets. These sheets are then sized so they come to you ready to be nailed in place and painted or kalsomined without any further treatment.

Anyone can use Superb Wall Board

No experience is necessary. Apply right to the studding, thus saving the expense of lath and no expense for "headers" or extra support. Convenient lengths and choice of 2 widths, 32 inches and 48 inches. Put on with ordinary bung head or flat head penny nails. The man who knows how to handle a saw and drive nails, can do a first class job with Superb. We furnish complete instructions with each shipment.

Add an extra room to your home. Reclaim the attic, turn an odd corner into a handy closet, build a strong partition to make two rooms out of one. Make a cozy bedroom up in the attic or a needed store room in the basement.

Superb is used for new or old walls, for covering old plaster, for repair work in homes, summer cottages, garages, poultry houses. Also for sheathing where not exposed to the weather.

Three Kinds of Finish

Our Superb Wall Board comes in three finishes, the gray or mill finish should be ordered where it is intended to either paint or kalsomine walls. The tan and golden oak are suitable for temporary decorative effects but we cannot guarantee these colors not to fade. Golden Oak finish can be furnished in 32-inch width only. Sample sent upon request.

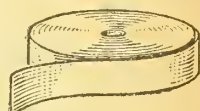
Prices of SUPERB Wall Board

| Width of Sheet Inches | Lgth. of Sheet Feet | Sq. Feet Per Sheet | Shlp. Wt. Per Sheet Lbs. | Gray Finish Per Sheet 274 E 300 | Tan Finish Per Sheet 274 E 301 | Golden Oak Finish Per Sheet 274 E 302 |
|-----------------------|---------------------|--------------------|--------------------------|---------------------------------|--------------------------------|---------------------------------------|
| 32 | 6 | 16 | 14 | .56 | .60 | .76 |
| 32 | 8 | 21 1/4 | 19 | .75 | .80 | .91 |
| 32 | 9 | 24 | 20 | .84 | .90 | .94 |
| 32 | 10 | 26 2/3 | 22 | .93 | 1.00 | 1.14 |
| 32 | 12 | 32 | 26 | 1.12 | 1.20 | 1.52 |
| 48 | 6 | 24 | 20 | .85 | .91 | 1.05 |
| 48 | 7 | 28 | 23 | .98 | 1.05 | 1.19 |
| 48 | 8 | 32 | 26 | 1.13 | 1.19 | 1.35 |
| 48 | 9 | 36 | 29 | 1.28 | 1.35 | 1.50 |
| 48 | 10 | 40 | 32 | 1.40 | 1.50 | 1.68 |
| 48 | 12 | 48 | 38 | 1.68 | 1.80 | 2.00 |

Shipped direct from Factory in Cincinnati, Ohio.



Panel Strips
Narrow wood strips to cover joints where joint tape is not used. Also for making wall panels. Yellow Pine. Thickness, 3/16 inch. Width, 1 1/4 inch. Wt., per 100 lineal ft., 15 lbs. Shipped only from Ohio Factory. 274 E 308—100 ft. \$2.00



Superb Joint Tape
Gummed strips of tough fiber paper to cover joints. All ready to use. Width, 1 1/2 in. 474 E 306—Gray. 474 E 307—Tan. Price, per 100-ft. roll, wt., 8 oz., extra for Parcel Post. 48c

Superb Crack Filler
For filling cracks between the sheets and giving a flat surface for painting or decorating. Order by number 474 E 305. 1-lb. can. \$.30 5 lbs. 1.10 10 lbs. 2.00 Order about 6 lbs. of filler for each 1,000 ft. of 48 in. board and a cut 9 lbs. per 1,000 ft. of 32 in.

Ward's Protecto Plaster Wall Board



PROTECTO Wall Board, or sheet plaster as it is sometimes called, is a perfect substitute for lath and plaster, but gives better service. Fire-resisting, moisture-proof and heat-proof.

Not a cheap plaster board but a high-grade, durable wall board, ready for decoration as soon as it is put up. No dampness, no delay, no settling cracks, no lath stains. Use Protecto anywhere in place of lath and plaster.

Protecto has a specially constructed plaster core, made by rolling a patent hard setting plaster between two sheets of tough cardboard and allowing it to dry into hard solid sheets. Ready-sized, can be painted, kalsomined or wall papered as desired. Square even edges fit flush, making crack filler unnecessary. (See note below.)

A carpenter or any handy man can put on this plaster board and do an entirely satisfactory job. This is a great help especially in new buildings—it eliminates any waiting for plasterers or for plaster to dry after being put on.

A nail will not crack Ward's Protecto. Nail it directly onto the studding. Convenient sizes make it possible to build any size wall in quick time.

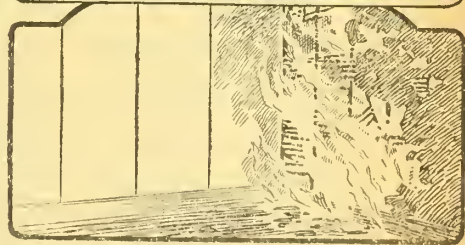
Samples on request.

Prices of PROTECTO Wall Board Order by No. 274 E 311 and size

| Size Inches | Square Feet Per Sheet | Thickness Inches | Price Per Sheet | Shlp. Wt. Per Sheet Pounds |
|-------------|-----------------------|------------------|-----------------|----------------------------|
| 32x 36 | 8 | 3/8 | .27 | 14 |
| 32x 36 | 8 | 3/8 | .28 | 15 |
| 32x 48 | 10 1/2 | 3/8 | .51 | 22 |
| 32x 72 | 16 | 3/8 | .76 | 34 |
| 32x 84 | 18 1/2 | 3/8 | .89 | 40 |
| 32x 96 | 21 1/2 | 3/8 | 1.01 | 46 |
| 32x 108 | 24 | 3/8 | 1.14 | 52 |
| 32x 120 | 26 2/3 | 3/8 | 1.27 | 57 |
| 48x 72 | 24 | 3/8 | 1.15 | 48 |
| 48x 84 | 28 | 3/8 | 1.33 | 56 |
| 48x 96 | 32 | 3/8 | 1.52 | 64 |
| 48x 108 | 36 | 3/8 | 1.71 | 72 |
| 48x 120 | 40 | 3/8 | 1.90 | 80 |

Shipped from Factories in Central Mich., Western New York, Central Ohio, or Northern Iowa.

Permanent Fire Resisting Plaster Core



No Lath To Burn When You Use Ward's Protecto

Fire eats its way into a room by attacking the lath. The lath burns and falls and the plaster falls with it. Not only is the plaster core of Protecto Wall Board fire-resisting, but by not using lath you save further chances of fire.

Another Big Feature—No Crack Filler Required

Our Protecto Wall Board has a patented square edge which when the pieces are fitted together, gives a perfect joint, making the use of a crack filler entirely unnecessary where walls are to be papered or paneled. If walls are to be painted or kalsomined without the use of panel strips by using a very small amount of our Superb Crack Filler you can obtain a perfectly smooth wall.

Building Materials Direct From Factory

Prompt Shipments - Low Prices - Quality Guaranteed

Write Us—Let Us Quote You
Lowest Market Prices
on All Kinds of Building Materials

STORM WINDOWS

They
Keep
Out
the
Cold

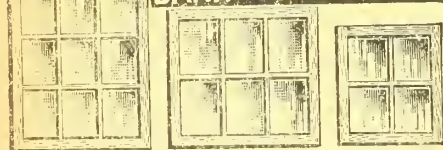


2-Light Storm Windows

Furnished glazed with single or double strength glass. Frame is of Clear White Pine, 1 1/2 inches thick, strongly mortised together. Side and top rails are full 2 inches wide, bottom rail is 1 1/2 inches wide. Ventilators not furnished at prices quoted. If wanted, allow 10 cents each, extra, and specify on order. All sizes listed are carried in stock. If you do not find your size given, write us for prices. Order by size and number, always giving width first. Average shipping weight, 30 lbs.

| Size of Glass | Size of Opening | 274 E 560 | 274 E 561 |
|---------------|-----------------|--------------------|--------------------|
| | Ft. In. Ft. In. | Price Glazed S. S. | Price Glazed D. S. |
| 12x20 | 1-4 x 3-11 1/2 | \$1.17 | |
| 12x24 | 1-4 x 4-7 1/2 | 1.36 | |
| 16x20 | 1-8 x 3-11 1/2 | 1.42 | \$1.51 |
| 16x24 | 1-8 x 4-7 1/2 | 1.61 | 1.73 |
| 18x28 | 1-10 x 3-11 1/2 | 1.90 | 2.14 |
| 18x20 | 1-10 x 3-11 1/2 | 1.55 | 1.66 |
| 18x24 | 1-10 x 4-7 1/2 | 1.92 | 2.03 |
| 20x20 | 2-0 x 3-11 1/2 | 1.74 | 1.95 |
| 20x22 | 2-0 x 4-7 1/2 | 1.88 | 2.11 |
| 20x24 | 2-0 x 4-7 1/2 | 1.93 | 2.16 |
| 20x26 | 2-0 x 4-11 1/2 | 2.20 | 2.31 |
| 20x28 | 2-0 x 4-11 1/2 | 2.20 | 2.31 |
| 22x24 | 2-2 x 4-7 1/2 | 2.10 | 2.21 |
| 22x26 | 2-2 x 4-11 1/2 | 2.21 | 2.32 |
| 22x28 | 2-2 x 4-11 1/2 | 2.21 | 2.32 |
| 24x20 | 2-4 x 3-11 1/2 | 2.03 | 2.14 |
| 24x22 | 2-4 x 4-7 1/2 | 2.33 | 2.44 |
| 24x24 | 2-4 x 4-7 1/2 | 2.33 | 2.44 |
| 24x26 | 2-4 x 4-11 1/2 | 2.35 | 2.46 |
| 24x28 | 2-4 x 4-11 1/2 | 2.35 | 2.46 |
| 24x30 | 2-4 x 5-7 1/2 | 2.72 | 2.83 |
| 26x18 | 2-6 x 3-7 1/2 | 2.03 | 2.14 |
| 26x20 | 2-6 x 3-11 1/2 | 2.03 | 2.14 |
| 26x22 | 2-6 x 4-7 1/2 | 2.32 | 2.43 |
| 26x24 | 2-6 x 4-7 1/2 | 2.32 | 2.43 |
| 26x26 | 2-6 x 4-11 1/2 | 2.56 | 2.67 |
| 26x28 | 2-6 x 4-11 1/2 | 2.56 | 2.67 |
| 26x30 | 2-6 x 5-7 1/2 | 2.93 | 3.04 |
| 28x24 | 2-8 x 4-7 1/2 | 2.54 | 2.65 |
| 28x26 | 2-8 x 4-11 1/2 | 2.66 | 2.77 |
| 28x28 | 2-8 x 4-11 1/2 | 2.66 | 2.77 |
| 28x30 | 2-8 x 5-7 1/2 | 3.03 | 3.14 |
| 30x21 | 3-0 x 4-7 1/2 | 2.74 | 2.85 |
| 30x26 | 2-10 x 4-11 1/2 | 3.07 | 3.18 |
| 30x28 | 2-10 x 4-11 1/2 | 3.07 | 3.18 |
| 30x30 | 2-10 x 5-7 1/2 | 3.44 | 3.55 |
| 32x24 | 3-2 x 4-7 1/2 | 2.60 | 2.71 |
| 32x26 | 3-2 x 4-11 1/2 | 2.60 | 2.71 |
| 32x28 | 3-2 x 4-11 1/2 | 2.60 | 2.71 |
| 32x30 | 3-2 x 5-7 1/2 | 2.94 | 3.05 |
| 40x28 | 3-8 x 5-7 1/2 | 4.43 | 4.54 |
| 40x30 | 3-8 x 5-7 1/2 | 4.43 | 4.54 |
| 44x28 | 4-0 x 5-7 1/2 | 4.43 | 4.54 |
| 44x30 | 4-0 x 5-7 1/2 | 4.43 | 4.54 |

BARN AND DAIRY SASH

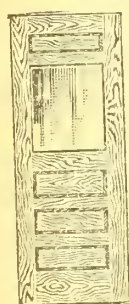


Barn Sash

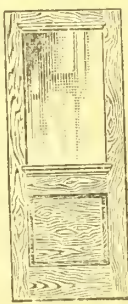
Clear White Pine Barn Sash, 4, 6 or 9 lights to sash, 6 and 9 light sash 1 1/2 in. thick, 4 light 1 1/2 in. thick. Ship. wt., each, 12-18 lbs.

| Article No. | Description | Size of Glass | Size of Sash | Price |
|-------------|-------------|---------------|------------------------------|--------|
| | | Inches | Width. Hgth. Ft. In. Ft. In. | |
| 274 E 550 | 9 h. Sash | 9x12 | 2 7/8 x 3 5/8 | \$1.35 |
| 274 E 551 | 6 h. Sash | 9x12 | 2 7/8 x 2 5/8 | 1.30 |
| 274 E 552 | 6 h. Sash | 8x14 | 1 8 x 3 11 | 1.50 |
| 274 E 553 | 4 h. Sash | 8x10 | 1 8 x 2 1 | 1.25 |
| 274 E 554 | 4 h. Sash | 9x12 | 1 10 x 2 5 | 1.30 |
| 274 E 555 | 4 h. Sash | 10x12 | 2 0 x 2 5 | 1.35 |
| 274 E 556 | 4 h. Sash | 12x14 | 2 4 x 2 9 | 1.55 |

Bargains in Good Doors



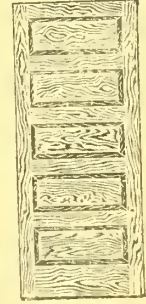
York



Lowell



Villa



Bungalow

Front Doors

Lowell design door furnished in "A" White Pine. York in "B" Fir. Both doors 1 1/2 inches thick glazed with double strength glass.

| Size | 274 E 445 | 274 E 435 |
|-----------------|-------------|---------------|
| Width Height | York Design | Lowell Design |
| Ft. In. Ft. In. | | |
| 2 6 x 6 6 | \$3.95 | \$2.75 |
| 2 8 x 6 8 | 4.25 | 3.70 |
| 3 0 x 6 8 | | |

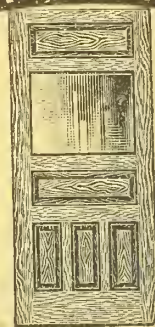
Interior Doors

Finest quality No. 1 Fir Doors. 1 1/2 inches thick.

| Size | 274 E 493 | 274 E 491 |
|-----------------|--------------|-----------------|
| Width Height | Villa Design | Bungalow Design |
| Ft. In. Ft. In. | | |
| 2 0 x 6 0 | \$3.45 | \$3.10 |
| 2 0 x 6 8 | 3.95 | 3.50 |
| 2 2 x 6 8 | 3.90 | 3.45 |
| 2 2 x 6 8 8 | 4.00 | 3.60 |
| 2 2 x 6 8 8 | 4.05 | 3.65 |
| 2 2 x 6 8 7 0 | 4.60 | 4.15 |
| 2 8 x 7 0 | 4.70 | 4.25 |

STORM DOORS

Keep
Your
Home
Com-
fortable



They
Save
Their
Cost
Yearly

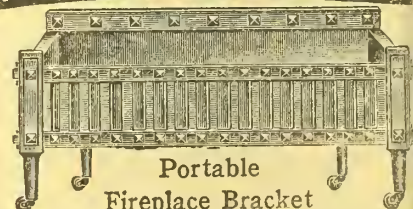
"A" quality White Pine Storm Door built to last years. Full 1 1/2 inches thick, furnished in sizes shown unpainted and unvarnished. Sizes are a little larger than the stock door sizes and are made thus so that storm door can be trimmed down until a perfect fit obtained. State size.

274 E 482—Order by number.

| Width | Length | Price |
|-----------------|-------------|--------|
| 2 ft. 6 3/4 in. | 6 ft. 9 in. | \$4.20 |
| 2 ft. 8 3/4 in. | 6 ft. 9 in. | 4.55 |
| 2 ft. 8 3/4 in. | 7 ft. 1 in. | 4.90 |
| 3 ft. 8 3/4 in. | 7 ft. 1 in. | 5.50 |

Average shipping weight, 60 lbs.

FIRE PLACE FIXTURES



Portable Fireplace Bracket

Cast Iron—Black Finish. State width wanted at front grate given in first column.

274 E 940—Order by number.

| Width at Front In. | Depth Inches | Width at Back In. | Ship. Wght. Lbs. | Price |
|--------------------|--------------|-------------------|------------------|-------|
| 19 | 12 | 16 | 50 | \$4.8 |
| 21 | 12 | 18 | 55 | 4.9 |
| 23 | 12 | 20 | 60 | 5.3 |
| 25 | 13 | 22 | 65 | 5.6 |
| 28 | 13 | 25 | 75 | 6.0 |
| 31 | 13 | 28 | 85 | 6.6 |

Fireplace Fixtures Shipped from Factory in Ohio



Andirons

274 E 907—Ball Top Cast iron, black finish. Height, 16 in. Ship. wt., 15 lbs. Price, per pair.....\$4.95

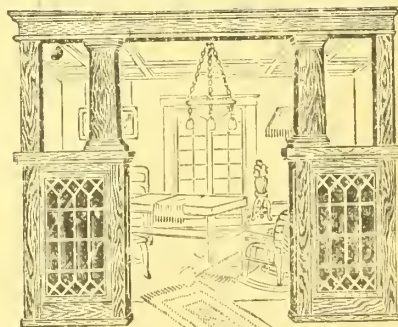
Andirons

Cast Iron—Black Finish. Height, 16 in. Ship. wt., 15 lbs. Price, per pair.....\$4.95

Fireplace Sets

Complete as shown with new design stand and ball bar shovel, tongs, and poker. This set is neat, attractive and durable. Height, 27 in. Ship. wt., 25 lbs. 274 E 925—Black Finish Iron Fireplace set. Price, per set.....\$3

Cabinet Work at Low Prices



Bookcase Colonnade

Made to go in the opening between living room and dining room or between dining room and library. Suitable for openings 6 to 12 ft. wide and 7 to 8 ft. high. Jambs and trim for openings not furnished. Hardware not included. See hardware prices below. Furnished in the natural wood—not stained or varnished. Ship. wt. of colonnade, about 250 pounds. Doors glazed with leaded crystal glass in design shown. 274 E 823—Colonnade in Yellow Pine \$36.00 274 E 824—Colonnade in Oak 42.00 274 E 855—Lemon Brass Hardware 1.10 Cabinet Work Shipped from Chicago.

Manchester Built-In China Closet

Fits in a recess in the wall, size, 5 feet wide x 7 feet high, 1 1/2 inches deep. Front comes even with the wall. The opening is finished with casing and cap similar to a door casing. Furnished in the white (not fluted or varnished) complete with glass and casings. Doors glazed with leaded crystal in design shown. Hardware not included—allow for extra cost of hardware. Can be finished with bevel plate mirror above counter-shelf \$8.00 extra. If wanted with mirror order No. 274 E 801 or Yellow Pine for 274 E 802 for Ship. wt., 250 lbs.

274 E 803—Manchester China Closet, Yellow Pine.....\$51 274 E 804—Manchester China Closet, Oak.....\$61 274 E 851—Hardwood Lemon Brass Finish.....\$4

Guarantee

Ward's ATLAS Asphalt Roofing

First cost is last cost when you use Ward's Atlas Asphalt Roofing. It is tough, durable, long-lasting water-proof and weather proof. Medium and heavy weights approved by the Underwriters' Laboratories, Inc. It is not only superior to wood shingles for roofing steep roofs, but is adapted for use on comparatively flat roofs, where shingles cannot be used.

Manufactured from long fiber tough felt. The felt is thoroughly saturated and heavily coated on both sides with selected mineral asphalt, which will not dry out, evaporate or disintegrate upon exposure to the elements. On the asphalt coating is a finishing layer of powdered mica, which is embedded in the asphalt coating under pressure, so it cannot wash or blow off. Mica is a perfect non-conductor of heat and electricity and its glittering surface reflects the rays

of the hot sun and gives added protection to the roofing, so that it wears at least one fourth longer than roofings finished in the ordinary way.

Made in 3 different weights, all the same quality—the only difference being in thickness and weight. Can be easily applied by anyone without tools, other than a hammer and knife. A complete direction sheet is furnished with each roll and sufficient large-head galvanized roofing nails and liquid asphalt cement for the laps are found in the core of each roll. Can be laid directly over old wood shingles. We list the various weights packed with extra long nails for this special purpose.

We recommend it for any type of building—house, barn or garage. It is reliable and economical. Guaranteed 7, 10, or 12 years—according to weight used.

Heavy
Weight Per Roll 55 lbs.
Guaranteed 12 Years

Medium
Weight Per Roll 45 lbs.
Guaranteed 10 Years

Light
Weight Per Roll 35 lbs.
Guaranteed 7 Years

Heavy
Weight per Roll, 55 lbs.
Guaranteed 12 Years

Use this where an exceptionally good, heavy roofing is required.

174 E 28—With regular nails \$2.45
174 E 29—With long nails for laying over old shingles \$2.55

Medium
Weight per Roll, 45 lbs.
Guaranteed 10 Years

For large barns, silos, etc.

174 E 24—With regular nails \$2.10
174 E 25—With long nails, for laying over old shingles \$2.20

Light
Weight per Roll, 35 lbs.
Guaranteed 7 Years

For barns, cattle sheds, etc.

174 E 20—With regular nails \$1.75
174 E 21—With long nails for laying over old shingles \$1.85

Shipped from Stock at Chicago, Louisville, Ky., Buffalo, N. Y., York, Pa. or St. Louis, Mo. Also from Warehouse in Atlanta, Ga. (Price 25c per roll extra if shipment is to be made from Atlanta.)

Ward's
Combination
Roofing

Handy Repair
Stick

An asphalt compound for mending leaks in all kinds of roofing. Useful for general repair work. Waterproof. Black in color.
474 E 260—Ship. wt., 1 lb., Each 15c

Wire Roofing Nails

Barbed nails for felt roofing. Used with tin caps. Use 1 lb. of 1 in. or 1 1/4 in. nails or 1 1/2 lbs. of 1 1/2 in. nails to each 100 sq. ft. roofing.

| Length Inches | Plain Barbed Roofing Nails | Galv. Barbed Roofing Nails |
|------------------|-------------------------------|-------------------------------|
| 1 | 474 E 184 | 474 E 190 |
| 1 1/4 | Per lb. 8c | 9c |
| 1 1/2 | Per lb. 8c | 9c |

Tin Roofing Caps

Tin Roofing Caps (use about 1 1/4 lbs. to 100 sq. ft. felt roofing).
474 E 180—Per lb. 8c

Large Head Galvanized Roofing Nails
Heavy wire nails as furnished with our Asphalt Roofings. Galvanized and rust-proof with wide flat heads.
474 E 198—1 in. Per lb. 10c
474 E 196—1 1/4 in. Per lb. 10c

Ward's
Lakeside
Roofing

A corrugated asphalt or "rubber like" smooth surface roofing made of roofing felt thoroughly saturated with genuine asphalt and coated upon both sides with another layer of asphalt, to increase its resistance to weather wear. Surface is then given a light dusting of powdered talc to prevent sticking in the rolls. Each roll is packed complete with large-head roofing nails and liquid asphalt cement for laps. Rolls 32 in. wide and contain 108 sq. ft., sufficient to cover 100 sq. ft., allowing for 2 in. lap. Directions for laying included.

Made in three weights: Light, 35 lbs. per roll guaranteed for 5 years. Medium, 45 lbs. per roll guaranteed for 7 years. Heavy 55 lbs. per roll guaranteed for 10 years. All the same quality.

274 E 30—Light, Ship. wt., 35 lbs. Per roll \$1.60
274 E 32—Medium, Ship. wt., 45 lbs. Per roll 1.90
274 E 34—Heavy, Ship. wt., 55 lbs. Per roll 2.20

Shipped promptly from Stock at Chicago, St. Louis, Mo., Louisville, Ky., Buffalo, N. Y. and York, Pa. Can also ship from Warehouse at Atlanta, Ga. When shipped from Atlanta, add 25c per roll.

It's Cheaper to Build a Warm House than to Heat a Cold One

Blue Plaster
Cardboard

A strong, durable cardboard, extensively used in place of lath and plaster on walls and ceilings. Used over boards or direct on studding.

The best material made for sheathing and insulating. Usually applied with large head tacks and then painted, covered with wall paper or covered with wood panel strips at the seams. Has a purple blue color. Width, 36 inches. (Prices subject to market changes).
174 E 234—Rolls of 250 sq. ft. Ship. 98c

174 E 235—Rolls of 500 sq. ft. Ship. wt., 60 lbs. Per roll \$1.95

Shipped from Chicago and St. Louis, Mo.

Tarred Roofing Felt

A good grade of tough felt, thoroughly saturated with best distilled coal tar. Used extensively for roofing sheds, lumber camps, and temporary buildings. Also used in making built-up flat roofs, where it is applied in from 3 to 6 layers. Each layer and the top surface should be coated with tar and the top surface covered with gravel.

For temporary work. Order the caps and roofing nails with this felt, as they are not included. Use 1 1/4 lbs. tin caps, 1 lb. nails to each roll. In rolls 36 in. wide. Contain 350 sq. ft. Ship. wt., 55 lbs. (Subject to market changes).
174 E 249—Price, per roll \$1.95

Shipped from Chicago, St. Louis, Mo. and York, Pa.

You'll save in coal bills the very first winter the small amount you spend for sheathing. Ward's sheathings, are specially made to protect against cold and wind. Guaranteed.

Asbestos
Building
Felt

This is the standard Asbestos Sheathing. An excellent insulator for heat and cold. For lining buildings, refrigerator cars, ice houses, etc. Deadens sounds when used between floors and for general building purposes.

Extensively used for covering warm air pipes from furnaces, etc. Will not burn even if brought into contact with flames. Rolls contain 450 sq. ft. Width, 36 in. Average ship. wt., 50 pounds. (Subject to market changes).
174 E 244—Price, per roll \$4.65

Shipped from Chicago Stock.

Standard
Deadening
Felt

Nothing is more annoying than to hear every footstep or sound from the floor above. This felt will help to overcome this trouble. It deadens the sound between floors and in walls. Makes an excellent protection against frost or for insulation of heat, etc.

Adds great comfort and warmth to the home when used between floors. It is made thick and heavy. Each roll contains about 450 sq. ft. Width, 36 inches. Average shipping weight, 50 lbs. (Prices subject to market changes).
174 E 237—Price, per roll \$2.95

Shipped from Chicago and St. Louis, Mo.

Red Rosin Sized
Sheathing

For use under siding and between floors.

Made of best pulp paper stock with a hard, smooth surface. Thoroughly rosin-sized, which helps to exclude wind, moisture and vermin. Tough, clean, durable.

Rolls contain 500 sq. ft. Width, 36 inches. (Prices subject to market changes).

174 E 218—Light, Ship. wt., 20 lbs. 70c
174 E 220—Medium, Ship. wt., 30 lbs. Per roll
174 E 223—Heavy, Ship. wt., 40 lbs. Per roll \$1.05
174 E 226—Price, per roll \$1.40

Shipped from Chicago, St. Louis, Mo. and York, Pa.

Herald Tarred Felt Sheathing

Made from tough felt thoroughly waterproofed with distilled tar. For use between sheathing and siding, also in lining floors. Resists wind, moisture, and vermin. Strong and durable. Better than ordinary building paper. Clean to handle.

The faint tar odor of the sheathing is of great value in dispelling mice, rats, bugs, moths, etc. Rolls contain 500 square feet. Width, 32 inches. Average shipping weight, 45 pounds.

(Prices subject to market changes).
174 E 226—Price, per roll \$1.95

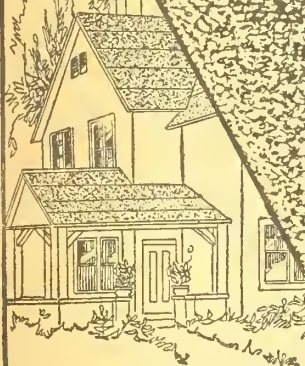
Shipped from Chicago, St. Louis, Mo. and York, Pa.

Ward's RADIO ROOFING

TRADE MARK

Slate Surfaced

RED or GREEN
\$2.65
PER ROLL
NAILS AND CEMENT INCLUDED



Here's How We Save Our Customers Money

Read this letter from Mr. King of Crown Point, N. Y. who purchased 7 rolls of Ward's Radio Roofing in June, 1920.

April 18, 1921

Montgomery Ward & Co.
Am well satisfied with the roofing I bought from you. Your roofing cost about one dollar per roll less.

(Signed)

Frank C. King
Crown Point, N. Y.

(We never reproduce letters from customers without their permission.)

Guaranteed Roofing Protection For 15 Years

IT'S protection you're after when you buy roofing. You want a roof that is safe and secure—that won't crack in the hot sun, shrivel under cold blasts, or leak in the hardest rain.

Ward's Radio Slate Surface Roofing guarantees you that, and more for 15 years. It is not only weather-proof but also spark-proof. It is approved by the Underwriters' Laboratories, Inc., under direction of the National Board of Fire Underwriters.

And in addition, its beautiful lasting colors (due to the layer of red or green crushed slate on its surface) make it a decoration as well as a protection. It is suitable for either city or country homes and will improve the appearance and increase the value of any house on which used.

Easy to lay—the only tools needed are a hammer and a jack-knife. You can put it on right over old wood shingles (for this purpose). It will not warp or curl, but will stay sound and tight for at least the full 15-year period—and under favorable conditions will last longer.

Ward's Radio Slate Surface Roofing is constructed of rag felt, heavily saturated with asphalt and given an extra coating of asphalt to make it double waterproof. Surfaced with a heavy layer of real crushed slate, which is protection against flying sparks, besides giving the roofing a beautiful, soft-shaded color, very attractive on any home.

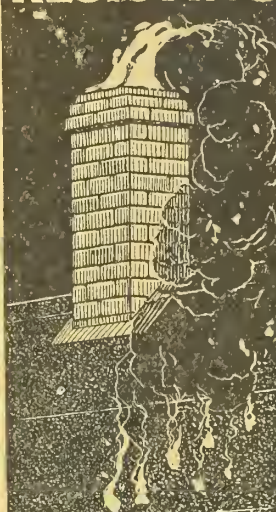
Comes in rolls 32 inches wide, 40½ feet long. Contains 108 square feet and will cover 100 square feet or one square, allowing 2-inch laps. Large-head galvanized nails, cement for laps and simple directions for laying included.

Where you intend to lay Radio Roofing over old wood shingles, order the rolls with the special long nails.

Prices Per Roll

Shipped from Stock at Chicago, York, Pa., and St. Louis, Mo.
174 E 54—Red, with regular 1-inch nails. \$2.65
174 E 55—Red, with long nails for laying over old wood shingles. 2.75
174 E 56—Green, with regular 1-inch nails. 2.65
174 E 57—Green, with long nails for laying over old wood shingles. 2.75
Also carried in Warehouse at Atlanta, Ga. When shipped from Atlanta, price is 40c per roll extra.
Shipping weight, per roll, 85 pounds.

**FIRE
RESISTING**



**GUARANTEED
15 YEARS**

Samples on
Request

Radio Mosaic Roofing Twin Colors

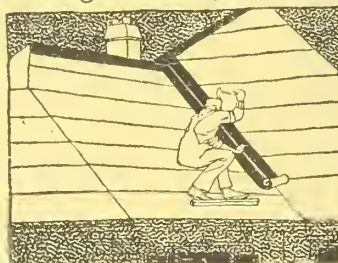
An attractive and artistic roofing for fine homes. Real crushed slate surface, same as our regular Radio Roofing (see above), but is made in twin colors—alternating Garnet Red and Sea Green. Makes a very striking roof.

Fire-resisting and spark proof—approved by the Underwriters' Laboratories, Inc., under direction of National Board of Fire Underwriters. Rolls contain 108 sq. ft. to cover 100 square feet, allowing for 2-inch lap. Width, 32 inches; length, 40½ ft.

Complete, with regular 1-inch large head galvanized nails, liquid cement for laps, and simple

directions for laying.
174 E 64—Radio twin color Mosaic Roll Roofing. Shipping weight, 90 pounds. Roll of 108 square feet. Price, \$3.85.
If wanted to apply over old shingles, use 74 E 196 long nails, about 2 pounds to the roll. Shipped from Stock at Chicago.

Radio Crushed Slate Surface Ridge or Valley Strips



Narrow roll for covering ridges and valleys (see illustration).

By first putting these strips on you save time and they give double protection at vital points. Made of same material as Radio Roofing with crushed slate surface. Cut in convenient strips. Two widths: 8 inches and 16 inches wide. Length, 40½ feet. The 8-inch width is used for covering ridges and the 16-inch width is used for covering valleys of roofs. Either red or green color at same price. Order nails separately.

| | Per Roll |
|------------------------------------|----------|
| 174 E 65—Garnet Red. Width, 8 in. | \$.65 |
| 174 E 66—Garnet Red. Width, 16 in. | 1.25 |
| 174 E 67—Sea Green. Width, 8 in. | .65 |
| 174 E 68—Sea Green. Width, 16 in. | 1.25 |

Ship. wt., 8 in., 19 lbs.; 16 in., 38 lbs.
Shipped from Chicago, York, Pa. and St. Louis, Mo.

Radio V-End Strip Shingles

Rolls of slate surfaced roofing with one edge cut in a V-end design as illustrated. Length, per roll, 48 ft., width, 17½ inches. Laid 12½ inches to the weather. Makes a roof of single thickness, and two thicknesses where nailed with a 5-inch overlap. Depth of notches, 3 in., width, 9 inches. Complete with 1-in. galvanized nails.
174 E 132—Red Slate Color. Per square (to cover 100 sq. ft.) \$3.75
174 E 133—Green Slate Color. Per square (to cover 100 sq. ft.) 3.75

Shipped from Stock at Chicago, York, Pa. and St. Louis, Mo.

Ward's RADIO SHINGLE ROLL

TRADE MARK

Insures Your Roof Until 1936!

A SAFE roof and a beautiful one—that's what you get when you buy Ward's Radio Shingle Roll. And remember, one that is guaranteed for 15 years.

When laid it looks exactly like stained wood shingles—but its colors are permanent and will not fade. Every rain freshens it and restores the original beauty of the color.

Costs less and is better looking than a wood shingled roof. Easy to lay—anyone can do the job. A hammer and a jackknife only tools needed, nails and cement included with each roll.

You can lay Radio Shingle Roll Roofing right over old wood shingled roofs.

Made of exceptionally heavy roofing felt, thoroughly saturated and coated with asphalt and surfaced with real crushed slate. (Colors are the colors of the natural slate on the surface.) Shingle design is permanent and will not wear off or fade. In laying, lay the shingle roll up and over (from eaves to ridge), instead of from the front of the house to the back.

Comes in rolls of 32 inches wide and 40½ feet long. 108 sq. ft.—enough to cover 100 sq. ft. and allows for 2-inch lap. Packed with large-head nails and cement and instructions for laying.

Prices Per Roll

Shipped from Stock at Chicago, York, Pa., and St. Louis, Mo.

| | |
|--|--------|
| 174 E 40—Red, with regular 1 inch nails..... | \$3.75 |
| 174 E 41—Red, with long nails for laying over old wood shingles... | 3.85 |
| 174 E 42—Green, with regular 1 inch nails..... | 3.75 |
| 174 E 43—Green, with long nails for laying over old wood shingles. | 3.85 |

Shipping weight, per roll, 85 pounds.

**FIRE
RESISTING**



**GUARANTEED
15 YEARS**

Ward's RADIO Asphalt Shingles

Weather Proof — Water Proof — Fire Resisting

EVERY year sees Asphalt Shingles becoming more and more popular. For city and suburban homes especially, they have practically supplanted the old wood shingles. Their fire-resisting qualities and beautiful permanent colors make them attractive both as a protection and an improvement on any home.

WARD'S Radio Asphalt Shingles are gradually supplanting wood shingles on city and suburban homes. They are spark-proof and water-proof, thus affording a safe and sound roof.

Made of exceptionally heavy roofing felt, thoroughly saturated and coated on both sides with asphalt and surfaced with a layer of natural colored (red or green) crushed slate which makes them fire-resisting and adds to their weather-resisting qualities.

A roof covered with Ward's Asphalt Shingles is protected for 15 years. The original cost is the only cost. No painting or staining needed.

And remember, they add to the beauty and value of your home. The colors are the colors of the natural crushed slate on the surface and are permanent and will not fade. Every rain washes them clean. These high-grade shingles are thoroughly reliable and guaranteed for 15 years.

Choice of Individual or 4-in-one Strip Shingles

We offer here a choice of individual shingles (shown at the right) or quadruple shingles (shown at the left). Each quadruple strip is the same as four individual shingles, but is made in a single strip to save time and labor in laying.

Your choice of either in the two standard slate colors — Red or Green.

Radio Quadruple Asphalt Shingles (4-in-One)

Size, 32½ inches long, 10 inches wide.
174 E 117—Red Slate. 174 E 118—Green Slate
The popular style—saves you time and labor. Nails not included. Use 2½ lbs. 1 inch nails if laid directly to the deck; use 5 lbs. 1½-inch nails if laid over old wood shingles. Laid 4 inches to the weather. Makes a roof of two thicknesses and three thicknesses where nailed. Wt., 200 lbs. per square.
112 strips furnished per square. Packed in crates containing 56 strips each—two crates to the square.

Price per square (To cover 100 sq. ft.) **\$6.45**
Shipped promptly from Stock at Chicago, York, Pa., Louisville, Ky., Buffalo, N. Y., and St. Louis, Mo.
Prices Subject to Market Changes.

Radio Individual

Asphalt Shingles


Size, 8x12½ inches.
174 E 122—Red Slate. 174 E 123—Green Slate.
Anyone can lay these individual shingles. Simply nail them on four inches to the weather. Nails not included. Use 4 lbs. 1-inch galvanized nails per 100 sq. ft.
Makes a roof of three thicknesses, and four thicknesses where nailed. Four boxes to the square. Ship. wt. about 240 lbs. per square.
424 shingles furnished per square. Shipped in packages containing 106 shingles each—four packages to the square.
Per square (to cover 100 sq. ft.) **\$6.95**
Shipped promptly from Stock at Chicago, York, Pa., Louisville, Ky., Buffalo N.Y. and St. Louis, Mo.



4 Shingles in One—Patented

Coverall house paint makes your house worth more money.

Montgomery Ward Co. Chicago ³ 761



QUICKER PICKUP

MORE SPEED

LESS CARBON

THE Runrite WAY

Where your engine works its best and gives least worry. Where Runrite Oils make your car run right.

Here's a Man Who Travels the Runrite Way

Read this letter from Mr. G. Robertson of Brazil, Indiana:
 Montgomery Ward & Co.
 I have used your Runrite Oil and found it to be the best oil I ever bought. I have told all my friends about it and will continue to buy it.

Yours truly,
 G. Robertson
 310 N. Ashley
 Brazil, Ind.

(Signed)

Note: We never publish letters from customers without their permission.

Ward's "Runrite" Oil for Fords

47c YOU can't be too careful about the oil you use in your Ford. Unless it's a heat-resisting oil—like Ward's Runrite—it will "break down" in the cylinders, cause carbon and run into repair bills.

Ward's Runrite Oil for Fords is specially designed for the high-speed Ford motor. It is produced in our own oil plant from paraffine base crude oils (paraffine base oils are extra heat-resisting) and has been tried and tested in our laboratories and out on the road until we are convinced that it is just the right oil for your Ford.

It helps your engine develop the most power from the gas used, pick up quicker, run smoother, and last longer without repairs. Every gallon GUARANTEED.

In sealed containers which protect it and keep it clean from our oil plant to your car. (Notice: Our prices include the cost of the containers.)

| | |
|--|-----|
| 275 E 7304—50-gal. wood bbl. Per gal. | 47c |
| 275 E 7305—50-gal. steel bbl. Per gal. | 57c |
| 275 E 7302—30-gal. wood bbl. Per gal. | 51c |
| 275 E 7303—30-gal. steel bbl. Per gal. | 60c |
| 175 E 7301—5-gal. can. Per gal. | 62c |
| 575 E 7300—1-gal. can. | 74c |

Steel barrels and 5-gallon cans shipped from Chicago or Warehouses at Harrisburg, Pa., and Atlanta, Ga. Other sizes from Chicago only.

Ward's "Runrite" Automobile Oil

52c Be sure of the oil you use in your car. It's one of the most important things you have to buy. Good oil—like Ward's Runrite—will make your engine run smoother and "sweeter" and save you many times its cost by the protection it affords the cylinders.

Ward's Runrite Auto Oil is our highest quality lubricating oil. We produce it in our own Oil Plant from special cylinder stock—paraffine base oils (ask any oil man if paraffine base "crudes" don't make the best motor oils). Has been used, and is being used, by thousands of our customers. It is giving reliable service everywhere. Runrite Auto Oil is the right oil for any car any time.

You can be absolutely sure in purchasing it that you are getting good, reliable lubrication with the correct body and sturdy heat-resisting qualities which enable them to "stand up" in the tremendous heat of the engine and protect the cylinders from excess carbon and early friction wear.

Scaled, dust-proof containers protect it from our oil plant to your car.

Choice of LIGHT, MEDIUM or HEAVY—order the grade you have been using, or if in doubt, write us, giving name and model of car and we will furnish you the right oil.

| Size | Light | Medium | Heavy | Per Gal. |
|--------------------|------------|------------|------------|----------|
| 50-gal. wood bbl. | 275 E 7465 | 275 E 7344 | 275 E 7435 | 52c |
| 50-gal. steel bbl. | 275 E 7479 | 275 E 7345 | 275 E 7439 | 62c |
| 30-gal. wood bbl. | 275 E 7466 | 275 E 7342 | 275 E 7436 | 56c |
| 30-gal. steel bbl. | 275 E 7480 | 275 E 7343 | 275 E 7440 | 66c |
| 5-gal. can. | 175 E 7467 | 175 E 7341 | 175 E 7437 | 79c |
| 1-gal. can. | 575 E 7469 | 575 E 7340 | 575 E 7438 | |

Steel barrels and 5-gallon cans shipped from Chicago or Warehouses (see notice under Oil for Fords). Other sizes from Chicago.

Runrite Tractor Oils

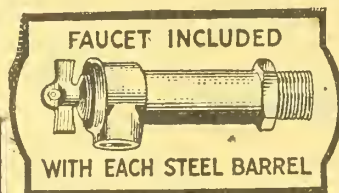
A special oil, made to stand up under extreme heat generated in tractor engines.

Another guaranteed product of our Oil Plant—refined from big grade crude oil, has correct body, big fire test and in every way meets the needs of heavy tractor duty.

Recommended for every make of tractor—we guarantee that Runrite Tractor Oils will provide first-class lubrication and save you money. Made in Medium, Heavy and Extra Heavy. Order the grade recommended by the manufacturer of your tractor, or write giving name and model and we will send the grade best suited to your machine.

| Size | Medium | Heavy | Extra Heavy | Gal. |
|--------------------|------------|------------|-------------|------|
| 50-gal. wood bbl. | 275 E 7100 | 275 E 7101 | 275 E 7120 | 67c |
| 50-gal. steel bbl. | 275 E 7101 | 275 E 7102 | 275 E 7121 | 77c |
| 30-gal. wood bbl. | 275 E 7102 | 275 E 7103 | 275 E 7122 | 70c |
| 30-gal. steel bbl. | 275 E 7103 | 275 E 7104 | 275 E 7123 | 79c |
| 5-gal. can. | 175 E 7104 | 175 E 7105 | 175 E 7124 | 87c |
| 1-gal. can. | 575 E 7105 | 575 E 7106 | 575 E 7125 | |

Steel bbls. and half bbls. shipped from Chicago Oil Plant or Warehouses (see notice under Oil for Fords). Other sizes shipped from Chicago.



Buy Your Oils in Steel Barrels

Costs you 25% to 50% less per gallon. And your steel barrel is sure protection against fire.

Order a steel barrel of oil the first time, next time a wood barrel and transfer oil into the steel container. Shipping weight, Oils, per gallon, about 8½ pounds.

Transmission Oil

Many experts declare oil the only satisfactory lubricant for the transmission because it penetrates into the innermost recesses and is in constant circulation.

Our Oil Plant has produced this special, heavy clinging oil which is just right for transmission. Per Gal.

| | |
|-------------------------------|-----|
| 275 E 7455—50 gal. wood bbl. | 48c |
| 275 E 7481—50-gal. steel bbl. | 58c |
| 275 E 7456—30-gal. wood bbl. | 51c |
| 275 E 7482—30-gal. steel bbl. | 60c |
| 175 E 7457—5-gal. can. | 62c |
| 575 E 7458—1-gal. can. | 81c |

Barrels shipped from Chicago Oil Plant.

Denatured Alcohol

Not available. Subject to market changes.

POISON—must not be taken internally. For use in spirit lamps, percolators, cutting shells, removing varnish, etc. 2% alcohol at 25 degrees below and 40% at 25 below, makes a non-freezing solution. Per Gal.

| | |
|------------------------|--------|
| 675 E 7657—1-gal. can. | \$.90 |
| 175 E 7658—5-gal. can. | 3.75 |

Transmission Grease

For auto transmissions and differentials. High quality. Semi-fluid. Will not harden. Recommended for use on all cars.

| | |
|----------------------------------|-------|
| 175 E 7524—10 lbs. in iron pail. | \$1.4 |
| 175 E 7525—25 lbs. in iron pail. | \$3.6 |
| 175 E 7526—50 lbs. in iron pail. | \$6.5 |

Fibre or Sponge Grease

For transmissions and differentials. Heavy, spongy—clings to moving parts. Does not leak or drip.

| | |
|----------------------------------|-------|
| 175 E 7459—10 lbs. in iron pail. | \$1.6 |
| 175 E 7460—25 lbs. in iron pail. | 3.7 |
| 175 E 7461—50 lbs. in iron pail. | \$7.0 |

Gasoline Engine Oil

Recommended for all makes of stationary or portable gasoline engines.

Medium bodied, ruby color with high fire test. Reduces Friction.

| | |
|--|-----|
| 275 E 7575—50-gal. wood bbl. Per gal. | 57c |
| 275 E 7576—50-gal. steel bbl. Per gal. | 67c |
| 275 E 7577—30-gal. wood bbl. Per gal. | 61c |
| 275 E 7578—30-gal. steel bbl. Per gal. | 70c |
| 175 E 7579—5-gal. can. Per gal. | 82c |
| 575 E 7580—1-gal. can. | 84c |

Steel bbls. and 5-gal. cans shipped from Warehouses (see notice under Oil for Fords). Other sizes shipped from Chicago.

See pages 856-859 for Sattley Gasoline Engines.

Steam Cylinder Oil

A medium bodied, pale green colored oil, specially compounded for lubrication of steam cylinder and valves, particularly where low pressure steam is used. Clings to walls of cylinder and valves.

| | |
|--|--------|
| 275 E 7555—50-gal. wood bbl. Per gal. | \$.85 |
| 275 E 7556—50-gal. steel bbl. Per gal. | .95 |
| 275 E 7557—30-gal. wood bbl. Per gal. | .89 |
| 275 E 7558—30-gal. steel bbl. Per gal. | .98 |
| 175 E 7559—5-gal. can. Per gal. | 1.00 |
| 575 E 7560—1-gal. can. | 1.12 |

Barrels shipped from Chicago Oil Plant.

Harvester Oil

A heavy-bodied dark green oil for use on all types of Harvester machines. Will stand up under considerable heat and will not gum or corrode bearings. Superior to castor machine oil.

| | |
|---------------------------------|-----|
| 275 E 7405—50-gal. wood bbl. | 40c |
| 275 E 7406—50-gal. steel bbl. | 55c |
| 275 E 7407—30-gal. wood bbl. | 44c |
| 275 E 7408—30-gal. steel bbl. | 53c |
| 175 E 7409—5-gal. can. Per gal. | 55c |
| 575 E 7410—1-gal. can. | 67c |

All barrels shipped from Chicago Oil Plant.

Reliable Cup Greases

High quality yellow cup greases for general machine use and for automobiles. Produced in our own Oil Plant—guaranteed to give good service and lubricate correctly in any style grease cup. Use Soft for pillow blocks, crossheads, etc.; Medium for general purposes (this one for auto hub and caps); Hard for heavy open bearings and screw cups.

| Can | Soft | Medium | Hard | Price |
|--------|------------|------------|------------|-------|
| 1-lb. | 575 E 7594 | 575 E 7592 | 575 E 7593 | \$.2 |
| 10-lb. | 175 E 7595 | 175 E 7603 | 175 E 7598 | 1.5 |
| 25-lb. | 175 E 7596 | 175 E 7604 | 175 E 7599 | 3.5 |
| 50-lb. | 175 E 7597 | | | 6.5 |

Special Cup Grease

For Fords

To meet the demand for a special cup grease for Ford cars, we have produced this special quality yellow cup grease, which we recommend to Ford owners everywhere. Use about every 1,000 miles. In applying, be sure first to clean the rear axle thoroughly, using a little kerosene, and then pack about 1½ lbs. of this special compound.

| | |
|------------------------|--------|
| 575 E 7609—1-lb. can. | \$.19 |
| 575 E 7605—5-lb. can. | .80 |
| 575 E 7606—10-lb. can. | 1.55 |
| 175 E 7607—25-lb. can. | 3.60 |

Differential Compound for Fords

A semi-solid compound which, when used in the differential of the Ford car, avoids rear axle trouble.

Use about every 1,000 miles. In applying, be sure first to clean the rear axle thoroughly, using a little kerosene, and then pack about 1½ lbs. of this special compound.

| | |
|------------------------|-------|
| 575 E 7322—5-lb. can. | \$.8 |
| 575 E 7323—10-lb. can. | 1.6 |
| 175 E 7324—25-lb. can. | 3.9 |

Wardway Auto Enamels

"A car like new in an hour or two." Refinish your car with Wardway Auto Enamel and enjoy the job. You don't need to be an expert—anyone can do a good job. Our enamels are smooth flowing and dry with a hard, bright glossy finish. Specially made for use on automobiles. Extra durable—withstanding frequent washings. Recommended for finest cars.

Choice of 8 colors. State color wanted: 162-Yellow; 161-Brewster Green; 168-Red; 167-Blue; 165-Dark Green; 160-Gray; 166-Wine; 163-Black.

| | |
|--------------------|--------|
| 75 E 7810—½ pint. | \$.28 |
| 75 E 7811—1 pint. | .53 |
| 75 E 7812—1 quart. | 1.02 |
| 75 E 7813—½ gal. | 1.82 |
| 575 E 7814—1 gal. | 3.38 |

Wt. gal., 15 lbs.

White Auto Paint

For painting wheels, body and trimmings.

| | |
|----------------------|--------|
| 75 E 7845—1 quart. | \$.36 |
| 575 E 7847—1 quart. | 1.12 |
| 575 E 7849—1 gallon. | 4.23 |

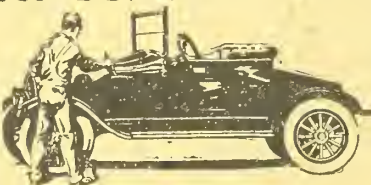
Shp. wt., gal. 15 lbs.

Top Dressing

A special waterproofing dressing for brightening and renewing auto and carriage tops and cushions.

| | |
|---------------------|--------|
| 575 E 8710—1 pint. | \$.63 |
| 575 E 8711—1 quart. | 1.17 |

Shp. wt., per qt., 3 lbs.



Special Auto Varnish

A transparent varnish for automobiles and carriages. Hard brilliant finish—gives good wear. Will not darken or discolor shade underneath.

| | |
|----------------------|--------|
| 75 E 8690—1 pint. | \$.52 |
| 75 E 8691—1 quart. | 1.98 |
| 75 E 8692—½ gallon. | 3.75 |
| 575 E 8693—1 gallon. | |

Shp. wt., per gal., 11 lbs.

"Rubberset" Auto Refinishing Brush

Ox hair, supported with black Chinese bristles, double thick, chiseled edge. Nickel-plated ferrule. Special for auto work. Wt. 2 to 4 oz.

| Art. No. | Width | Bristles | Each |
|----------|--------|----------|--------|
| 75 E 686 | 1½ in. | 1½ in. | \$1.35 |
| 75 E 687 | 2 in. | 1½ in. | 1.85 |
| 75 E 688 | 2½ in. | 1½ in. | 2.30 |
| 75 E 689 | 3 in. | 2 in. | 2.95 |

Separator Oil

A non-viscous, neutral oil. Made in our own Oil Plant. Light bodied, light colored. Flows freely and is practically stainless. Will not thicken or gum from use.

| | |
|--------------------------|-----|
| 275 E 7547—5-gallon can. | 50c |
| 75 E 7548—1-gallon can. | 62c |
| 75 E 7544—1 quart. | 29c |

Machine Oil

Our machine oils are well known for their general all around efficiency and also for the low price we ask for them. You should always have some at hand for use around house and farm. Per Gal.

| | |
|-------------------------------|-----|
| 275 E 7375—50-gal. wood bbl. | 50c |
| 275 E 7376—50-gal. steel bbl. | 60c |
| 275 E 7377—30-gal. wood bbl. | 54c |
| 275 E 7378—30-gal. steel bbl. | 63c |
| 175 E 7379—5-gal. can. | 65c |
| 575 E 7377—1-gal. can. | 77c |

Barrels shipped from Chicago Oil Plant.

Ward's Harness Oil

Preserves and softens the leather, lengthens its life. May also be used on buggy tops, applying with a cloth.

| | |
|-----------------------|--------|
| 575 E 7353—1 quart. | 42c |
| 575 E 7352—½ gal. 60c | |
| 575 E 7351—1 gal. 80c | |
| 175 E 7350—5 gallons. | \$3.25 |

For Ward's Own Harness See Pages 835-854

Graphite Axle Grease

Made in our Oil Plant from graphite base that gives better lubrication and lasts longer.

| | |
|-------------------------|-------|
| 575 E 7646—1-lb. box | \$.1 |
| 475 E 7647—10-lb. pail. | 1.1 |
| 175 E 7648—25-lb. pail. | 2.6 |

You Always Save Money When You Buy Ward's Auto Supplies

Compare Prices

TO buy carefully is a mark of success. To buy carelessly is a waste of money and gives a feeling of disappointment when you find you have paid considerably more than was necessary. There is only one sure way of knowing that you are getting full value for your money and that is to make comparisons of prices and quality.

SATISFACTION—the giving of the best quality merchandise at a big saving, often amounting to several dollars on a single article, has built up our Auto Supply Department to a point where today several hundred thousand auto owners depend on it for a square deal on the supplies they buy.

How to Run Your Auto for Less

IT is easy to reduce auto expenses when you buy from Ward's. When you stop to figure out that you pay nearly as much for tires as you do for gasoline, you will see that by using Ward's Riverside Tires you can save from \$25 to \$100 a year on this one

item. Millions of dollars are wasted yearly because motorists pay too much for tires. Before buying another tire, compare prices and guarantees with those offered on Riversides and see how Ward's will reduce your tire bills. Our gasoline savers put more miles in each gallon. Our Nu Power piston rings save oil and gasoline. Our bumpers, brake lining, shock absorbers and tire chains prevent many costly repair bills. Get more service and enjoyment from your car at less cost by sending to Ward's for supplies.

Do Your Own Repairing

THERE are times when it is necessary to take your car to the repair man—but there is a way to make these calls less frequent. One of the best articles an auto owner can buy is a socket wrench set, such as our outfits on page 773.

Every once in a while go over your car and tighten up the loose bolts and nuts. This not only stops the rattle, but holds the parts together, preventing excessive wear and delays the time when new parts will be necessary. You will also find our carbon removers, bearing scrapers, brake lining, vulcanizers, piston rings and scores of other articles are real helpers for bringing down the upkeep—and you'll get more enjoyment from your car when you know it better. The next time you hear a strange click, knock or rattle fix it yourself with supplies from Ward's.

Use Ward's Prices as Your Guide

MAYBE you've noticed how prices on standard auto supplies differ. One place there's one price—another place there's another price, yet the article is just the same. You can make sure of the right price to pay by using Ward's catalog as your guide.

There's no reason why you should pay several dollars more for tires, Motometers, Weed chains, wrench sets, batteries, spotlights, bumpers, etc., when you have Ward's guarantee to protect you on quality. The next time you are going to buy any article for your car, just look up the price in this catalog or our special Auto Supply Catalog, and see the big saving you'll make by sending to Ward's.

Supplies for All Cars



Send Your Orders to Ward's

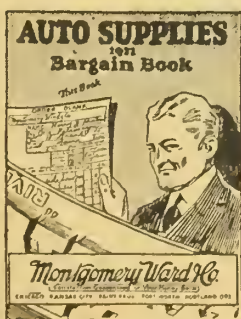
You Get What You Want-When You Want It

WARD'S Auto Supply department is probably the most complete in the country selling to the auto owner. We have such large stocks that we can make very prompt shipments. Thousands of motorists living in the cities buy auto supplies from us just the same as the hundreds of thousands that live in the small towns and country, because they save money and often get articles here that they can't buy elsewhere. They know Ward's guarantee means complete satisfaction. We offer the motorists living several miles from a town just as great a selection to choose from and the same low prices that the motorist living in the biggest cities can get. Send your next order for auto supplies to Ward's.

Every Auto Owner

Needs This 100-Page Auto Supply Book

OVER 3,500,000 auto owners have received our 100-page Auto Supply Book and use it as a price guide and selection book for articles they should have. It contains hundreds of items not shown in this Catalog. We are anxious to have every motorist keep this Auto Supply Book handy and refer to it before buying any articles. We are certain after comparing prices you'll buy from Ward's. If you do not have a copy, write for it or ask for a copy when sending your next order—It's Free.



Ward's Riverside

\$9²⁵
Size
30x3
6,000 Mile
Driving Tread

\$10⁴⁵
Size
30x3½
6,000 Mile
Road Grip

WARD'S Riverside Road Grip TIRES

Our Road Grip Tread are ideal tires for the rear, though many use them on all four wheels. The tough, resilient, thick tread is covered with hundreds of road gripping, non-skid angles that give a good hold on wet, muddy roads and slippery pavements. This is our own trade-marked design. Every movement of the wheel is protected—the tires roll easily, yet the angles hold firmly so your motor's power is not lost, due to the rear wheels spinning.

WARD'S Riverside Driving Tread Auto Tires

The Driving Tread design is a decided improvement over the ordinary smooth tread in that it is built up high, having less road touching surface, thus reducing friction and making them savers of gasoline. In addition to the easy rolling feature, Riverside Driving Tread Tires make steering easier and the two center grooves have a strong tendency to prevent side skidding. The raised tread and groove design make this an especially attractive tire.

Use Ward's Prices as Your Guide for the Right Prices to Pay for Tires.

| Riverside Road Grip Prices | | | | |
|----------------------------|----------------|--|--------|------------------------|
| Size | Clincher Style | Straight Side Style | Price | Average Ship. Wt. Lbs. |
| 28x3 | 464 E 3053 | ..... | \$8.95 | 9¼ |
| 30x3 | 464 E 3055 | ..... | 9.25 | 10½ |
| 30x3½ | 464 E 3059 | ..... | 10.45 | 13 |
| 32x3½ | ..... | 464 E 3331 | 14.25 | 13½ |
| 31x3¾ | 464 E 3050 | Special Giant Size fits 30x 3½ Clincher Rims | 13.65 | 14½ |
| 31x4 | 464 E 3071 | ..... | 15.55 | 16½ |
| 32x4 | ..... | 464 E 3335 | 17.75 | 17 |
| 33x4 | ..... | 464 E 3337 | 18.75 | 17½ |
| 34x4 | ..... | 464 E 3339 | 19.75 | 18½ |
| 32x4½ | ..... | 464 E 3343 | 26.75 | 23 |
| 33x4½ | ..... | 464 E 3342 | 27.75 | 24 |
| 34x4½ | ..... | 464 E 3344 | 28.25 | 24½ |
| 35x4½ | ..... | 464 E 3345 | 29.95 | 25½ |
| 36x4½ | ..... | 464 E 3347 | 30.95 | 26½ |
| 33x5 | ..... | 464 E 3349 | 36.50 | 27 |
| 35x5 | ..... | 464 E 3350 | 39.95 | 29 |
| 37x5 | ..... | 464 E 3351 | 42.50 | 32 |

Riverside 6,000 Mile Guarantee

Every tire on this page is guaranteed against defects on a 6000 mile service basis. Should a defect develop we will replace or repair the tire on this basis.

All Riverside Tire and Inner Tube Prices are Subject to Change Without Notice.

Why Pay More Than These Prices

When you have Ward's strong guarantee of 6000 miles service back of every tire on this page, certainly there is no reason for paying several dollars more than we ask. Decide now to save money by using Ward's Riverside Tires.



Riverside Driving Tread Prices

| Size | Clincher Style | Straight Side Style | Price Each | Average Ship. Wt. Lbs. |
|-------|----------------|---------------------|------------|------------------------|
| 28x3 | 464 E 3000 | ..... | \$8.95 | 9 |
| 30x3 | 464 E 2951 | ..... | 9.25 | 10 |
| 30x3½ | 464 E 2952 | ..... | 10.45 | 12½ |
| 32x3½ | ..... | 464 E 3254 | 14.25 | 13 |
| 31x4 | 464 E 3018 | ..... | 15.55 | 16 |
| 32x4 | ..... | 464 E 3258 | 17.75 | 16½ |
| 33x4 | ..... | 464 E 3260 | 18.75 | 17 |
| 34x4 | ..... | 464 E 3262 | 19.75 | 17½ |
| 34x4½ | ..... | 464 E 3267 | 28.25 | 24 |
| 35x4½ | ..... | 464 E 3268 | 29.95 | 24½ |

Tires by Parcel Post.

Every size tire can now be sent by parcel post all points. In Zones 1 to 3, tire packages weigh up to 70 lbs. can be shipped. Tire packages weigh less than 50 pounds can be shipped by parcel post all other Zones.

This is a quick, easy way to order them shipped and the transportation cost is very small.

Ward's Riverside Tires give you Most for the Money

side Auto Tires

Fabric

Facts About Tire Prices

These Five Big
Ward Stores
BACK UP OUR GUARANTEE
ON RIVERSIDE TIRES

HIGH prices don't make the tires better. Just because you pay several dollars more for some other tires than you do for Ward's Riversides is no proof of greater value. In most cases the high priced tires have exactly the same mileage guarantee as Riversides. The truth of the matter is that the tire makers have got to put on several dollars more to take care of the added profits and expenses of dealers, agents, jobbers, traveling salesmen, etc. Why, sometimes auto owners pay as many as four profits on a single tire.

When you buy Riverside Tires there's only one small profit added to the manufacturing cost. The average tire dealer selling a few hundred tires could not stay in business profitably, if he sold each of his tires for so little profit as Ward's do. We prefer to make a small profit on big sales rather than a big profit on small sales. The total number of Riversides sold passed the million mark last year—and right now we are selling thousands more per week than ever before.

Every Riverside Tire Guaranteed "First" Quality

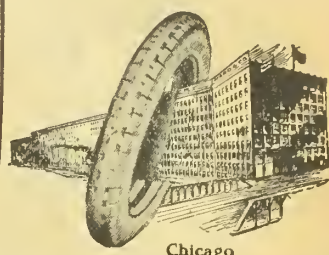
It is our aim to make Riverside Tires good that you will always use them. They are made of exceptionally fine grade, fresh materials in a factory that is equipped with the best type of machinery. During the last few years we have directed the making of over 1,000,000 Riversides. We have studied and tested all kinds of tires—we have kept constantly on watch for every improvement that would make Riversides surpass others. Riverside Tires today are better than ever before—they have thicker and tougher treads, and the body of the tire is stronger. Customers continually tell us, and our own salesmen have proven that Riversides are able to measure up to and often give greater service than the highest priced tires on the market.

**Save \$5 to \$15
ON EACH TIRE**

When you buy Riverside Tires you are really becoming your own tire dealer. You get guaranteed first quality tires at prices that are actually as low as many dealers pay for tires of equal guarantee—equal construction and equal size. Instead of paying somebody else a profit for ordering your tires, do it yourself and save the profit. Just compare Riverside Prices with those on other tires having exactly the same guarantee and you will see for yourself that you are actually keeping \$5 to \$15 in your pocket every time you buy one. This often means a saving of \$20 to \$60 a year. That's pretty good for simply ordering your tires by mail, isn't it? Send your orders by mail to Ward's for Riverside Tires. You simply write down the catalog number, size and style—enclose a check or money order and in a very short time the tire is delivered right to your home. Do this the next time you need a tire.

Over 1,000,000 Riversides Sold Direct to Auto Owners

Altogether over 1,000,000 Riversides have proven how we save auto owners several dollars on each tire. Last year over 250,000 Ward's Riverside Tires were sold direct to auto owners. You know it would be impossible for us to build up such a wonderful tire business unless Riversides were quality tires. It is only because Riversides give better service for less money that our sales keep growing so rapidly. We have received many letters from customers telling us that Riversides gave them better service than any other tires, regardless of cost. All Riversides are fresh, brand new tires—that's another point that has helped to build up our big sales.



Chicago



Saint Paul

Guaranteed

6000 Miles

You Can't Beat Ward's Guarantee

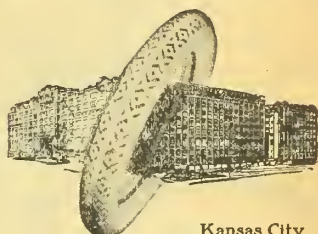
FOR over 49 years Ward's guarantee has meant Satisfaction. This same guarantee that has proved the money of millions of Ward's customers is given to you on Ward's Riverside Tires. When you buy Riversides, there is no question about the service you will receive—it's guaranteed. We make Riverside Tires so good that you'll keep on using them—every Riverside is its own salesman—no one must sell more. Our guarantee makes certain you will receive fine quality Tires that will equal in every way tires considerably higher in price.

Try Two Riversides Right Now

There is only one way that you will ever become an enthusiastic Riverside Tire user and that is by trying them. Can you think of any reason why you should not try them? Our prices save you money—our guarantee protects you on quality—our selling method makes it possible for you to have the tires delivered right to your door by parcel post. If there is any question in your mind about the appearance or size of Riverside Tires, order a pair, either the guaranteed 6,000-mile fabric or the 10,000-mile cord tires, whichever you need, according to "Our Offer to You."

Satisfaction for You Means Success for Riversides

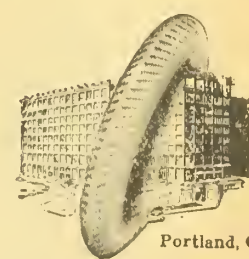
When you stop to think that the only way we can expect you to keep using Riverside Tires is by making them so good that you will insist on having more, isn't it reasonable that Ward's will sell only brand new, first quality Tires? Riverside Tires have to make good on their own merits. They must travel right alongside the high priced tires over the same kind of roads—they must go as far, if not farther—they must give you fully as great freedom from trouble—they must cost you less in the end, or we know you won't order more. They will do it because we know they are made right. Our sales this year are far greater than ever before, which shows auto owners have proven to their entire satisfaction that Riversides save them money from start to finish.



Kansas City



Fort Worth



Portland, Ore.

14,152 Miles—No Trouble

I have a Riverside Fabric Tire that has run 14,152 miles and is still going. Not one speck of trouble has this tire given me in all that distance. Please send me your next Auto Supply Catalogue.

Harvey H. Hoeker, Redondo Beach, Calif.

Riversides Give Better Service

I have two Riverside Fabric Tires on my car that have given me better service than any tires I have ever used before. I bought my first Riversides because Montgomery Ward's have always given me a square deal on everything I have purchased from them. I am more than pleased with the service from Riverside Tires.

H. B. Conradi, Morrison, Ill.

We Never Print a Customer's Letter Without Permission.

Here is Our Offer to You Could It Be Fairer?

So that you can see the truly remarkable value of Ward's Riverside Tires, we want you to order as many as you need—right now. Order one, two, three, or four—look them over—feel the big, thick, heavy tread and see how fresh and lively the rubber is—compare them in every way. Inspect

them thoroughly and your examination will quickly prove they are unusual bargains. You must be satisfied. If, for any reason, you should feel that you don't want to keep them, send them back and we will refund your money and the transportation charges you have paid, so you will not be out a cent.

Riverside Tires Save
Your Money From Start to Finish

We sell only first quality guaranteed tires

★ Montgomery Ward & Co. Chicago

765

Ward's Riverside

TRADE MARK

SAVE \$5 to \$20 on Each Cord Tire

A comparison of Riverside Cord Tire prices with the latest prices of other well known cord tires shows Riversides actually save \$5 to \$20 every time you buy one. Most of the higher priced cords guaranteed for only 8,000 miles, while the Riverside is guaranteed 10,000, so on a cost per mile basis the saving is even greater than exact difference in price would indicate. Many auto owners who have never bought by mail before are ordering Riverside Cord Tires, cause they know Ward's is a big, reliable company that does as promises and the saving of \$25 to \$100 a year on their tire bills is great an amount to let pass unnoticed.

Ward's Guarantee Protects You on Quality

10,000 Miles Guaranteed

Every Riverside Cord is absolutely guaranteed against defects in either material or workmanship on a service basis of 10,000 miles. If in any case defect in either material or workmanship should develop we will replace or repair the tire on a 10,000 mile service basis.

Riverside Cords the Best Tires He Ever Had

After doing a great deal of country touring and city driving I find that my 35x5 Riverside Cords have carried us over twelve thousand miles. Before buying Riversides I had always used the highest priced advertised Cord tires and never had been able to get the mileage and satisfaction that Riverside Cords have given. My car weighs over 4100 pounds, so I consider this remarkable service. Thank you for the promptness you have always given my orders.

A. N. Edwards, Austin, Ill.

Printed With Customer's Permission.

Riverside Cords Give Long Service Without Showing Wear

I got a couple of Riverside Cord Tires early last year and have had such satisfaction out of them that I am going to use them all 'round. I have driven them over 7500 miles and there has been no apparent wear on them, and they look good for fully as much more mileage.

G. H. White,

Route 3, Madison, Wisconsin.

Printed With Customer's Permission.

Special 30x3 1/2 Cord

Guaranteed 10,000 Miles—For Ford Maxwell, Chevrolet, Overland, etc.

This special 30x3 1/2 Riverside Cord is built of the finest materials and in the same manner as our larger sizes except for the bead which is for clincher type rims. It is much stronger, heavier and more durable than most cords of this size. Guaranteed 10,000 miles. Shipping weight, about 17 pounds.

464 E 2971—Price, each... \$17.75

All Tires Can be Shipped by Parcel Post

Every size tire can now be sent by parcel post to all points. In Zones 1 to 3, tire packages weighing up to 70 lbs. can be shipped. packages weighing less than 50 pounds can be shipped by parcel post to all other Zones.

This is a quick, easy way to order them ship and the transportation cost is very small.

All Riverside Tire Prices are Subject to Change Without Notice.

Cord Tire Prices

All Sizes are Straight Side Except 30x3 1/2

| Size Inches | Rim Style | Article Number | Price Each | Av. Ship. Wt., Lbs. |
|-------------|-----------|----------------|------------|---------------------|
| 30x3 1/2 | Cl. | 464 E 2971 | \$17.75 | 17 |
| 32x3 1/2 | SS | 464 E 2973 | 26.95 | 21 |
| 32x4 | SS | 464 E 2975 | 29.55 | 22 1/2 |
| 33x4 | SS | 464 E 2977 | 31.95 | 23 |
| 34x4 | SS | 464 E 2979 | 33.25 | 24 |
| 32x4 1/2 | SS | 464 E 2981 | 38.55 | 26 |
| 33x4 1/2 | SS | 464 E 2983 | 39.45 | 27 |
| 34x4 1/2 | SS | 464 E 2985 | 39.90 | 28 |
| 35x4 1/2 | SS | 464 E 2987 | 41.95 | 29 |
| 36x4 1/2 | SS | 464 E 2989 | 44.25 | 33 |
| 33x5 | SS | 464 E 2991 | 49.75 | 36 |
| 35x5 | SS | 464 E 2993 | 52.75 | 40 |
| 37x5 | SS | 464 E 2995 | 54.75 | 42 |

Cl., —Regular Clincher. SS., — Straight Side.

Riverside Cord Tires

Ward's Tires Guaranteed First Quality

EVERY Riverside Tire is fully guaranteed by Ward's to be absolutely First Quality. Riverside Tires are built in one of the finest equipped factories in the country. The materials used are excellent quality. We positively do not sell the so called "Second" tires, as we couldn't risk our reputation on any which has blemishes or marks that might cause trouble. Riverside Cord tires are guaranteed 10,000 miles because we know they are exceptionally strong and will give you the kind of service you expect. We worked on cord tires for over 25 years before offering them to you. We have spent thousands of dollars testing on all kinds of roads—and on special tire testing machines. Expert tire men carefully watch every step in the making of Riverside Cords, so you will get strong, dependable tires.



Riverside Cord Tires Give You "Most for the Money"

Many of our customers who keep records of tire mileage have told us that Riverside Cords, time after time have gone thousands of miles more than other tires costing several dollars above our prices. The tread is extra thick and specially toughened so it will go long distances without showing scarcely signs of wear. The bodies of the Riverside Cord Tires are built so strongly they are giving remarkably good service on the heaviest cars. You can save the original cost when buying Riversides and you also save on the cost per mile basis. Before buying another tire, take advantage of our offer shown below. Thousands of auto owners are changing over from fabric tires to Ward's Riverside Cords, as cord tire construction is now acknowledged to be the best, and our Riverside Cord Tire prices are so reasonable that they are much more economical in the end.

Why Riverside Cord Tires Are Better

Ward's Riverside Cord Tires are greatly oversize construction when compared with fabric tires. This makes a remarkable difference in the easy riding qualities due to the enlarged air capacity. Oversize also means greater mileage for you. The cords used in Riversides are tremendously strong, being much heavier and tougher than those used in fabric tires.

These features combined with their heavier treads make them much harder to puncture. Every single cord is covered with rubber so no two strands touch each other, thus permitting each cord to flex freely with scarcely any friction. That's another reason why they ride so smoothly and even at high speeds show less signs of heating up. Less air pressure is necessary when using Riverside Cords so they act more as a cushion or shock absorber enabling you to travel over rough roads much faster, more comfortably and with greater freedom from trouble.

Guaranteed

10,000 Miles

You Can Always Depend on Ward's Guarantee

WHEN you buy Riverside Cord Tires you have our 49 year reputation for square dealing to back up our 10,000 Mile guarantee. If you could come to our store and the hundreds of orders we receive for three or four Riverside Tires at a time, from auto owners just like yourself, you would be impressed with the confidence they have in Ward's Riverside Tires. Continuous success has been maintained only by selling first quality tires. That's why we watch the materials that go into Riverside Tires very carefully and demand the best inspections of workmanship, so each Riverside will hold your confidence and prove that Ward's is the best place to buy tires.

One Small Profit

When you sometimes wondered how much profit there is in tires when you've noticed the great difference in price between Ward's Riverside Cord Tires and other cord tires giving the same guarantee? Some tires have to carry four or five profits and expenses so that the dealers, agents, and traveling salesmen can get their share. You pay the bill when you buy one of these tires. Ward's tires are sold on one very small margin of profit—that's the profit added to the manufacturing cost. Selling direct to hundreds of thousands of auto owners and dealers in enormous quantities are the reasons why we give you a wonderful quality at our remarkably low prices.

No Tire Has Been Given Harder Tests

When they had to make good for were men just like yourself, men who insisted on knowing the mileage each dollar produced for them and checked up on the speedometer. Our constantly increased sales of Riverside is the greatest proof of quality. Most autoists bought one or two Riversides first and they proved so satisfactory that they kept on buying Riversides and told their friends about them. This explains why Riversides are now one of the best known tires on the roads.

Accept This Offer You Don't Risk a Cent

IF there is any question in your mind regarding the size, construction, weight or any point that can be satisfied by closely examining the Riverside Cord Tire, we want you to order as many as you need—right now at our risk. Inspect them thoroughly—put them up alongside the tires selling for \$10 or \$20 more—notice their oversize construction—feel the thick, lively tread and convince yourself they are a wonderful bargain. You must be satisfied. If for any reason you should feel that you don't want to keep them, send them back and we will refund your money and the transportation charges you have paid, so you will not be out a cent.

Make This Test

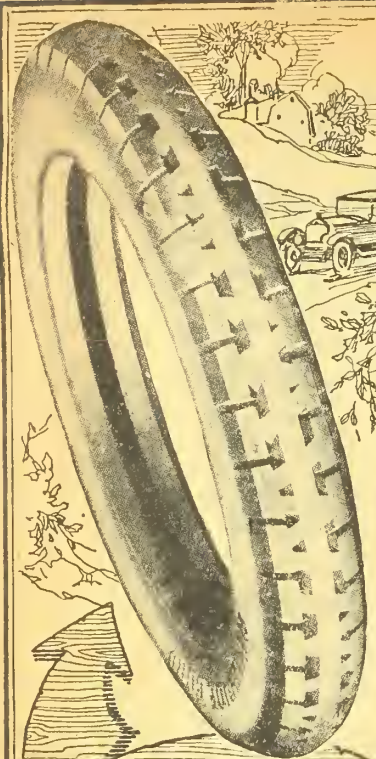
THERE'S only one fair way to judge a tire and that is to put it on your car and compare it for service with the tires that have pleased you best, under the same kind of conditions. This is the test that is every day convincing hundreds of motorists that they've been paying too much for tires. Put a Riverside Cord Tire on the wheel opposite the tire that has pleased you best, regardless of the cost or make of the other tire and see how the Riverside cuts down your expense. We depend on the record of each Riverside Tire to sell you more.

Compare Prices

Men, generally known as successful, are, as a rule, very careful buyers. The more careful you are in buying tires, the more certain you are that you will buy Riverside Cord Tires now—and continue to buy them in the future. Every comparison you can make will favor Riverside Cords. As you know most cord tires are guaranteed for only 8000 miles—you gain here as Riverside Cords are guaranteed 10,000 miles. That additional 2000 miles guaranteed by Ward's means that Riverside Cord Tires will give you extra full measure of service. You buy gasoline by the gallon—grain by the bushel—coal by the ton. Why not buy tires by the mile? The next time you buy a tire, figure out how much it's going to cost you per mile by dividing the cost by the guaranteed mileage. A 30x3½ Riverside 10,000 mile casing costs you \$17.95—this is less than ½ of a cent per mile. Other sizes are priced just as reasonably when compared with prices generally asked.

The Easiest Way to Buy Tires

Buying Riverside Tires is so very simple and the saving so great that hundreds of auto owners who never before have bought by mail have felt they have discovered something new when they enclosed a check with their first order for Riverside Tires, and in a very short time received the tires at their front door. All tires can be sent by parcel post, so ordering Riverside Tires is only a matter of a few moments' time. If you've never tried it, be sure to order your next tires from Ward's—you'll like the mail order way of buying tires—Ward's guarantee means satisfaction.



Ward's Bargains for Users of 30x3 and 30 x 3 1/2 Tires

for Ford, Maxwell, Chevrolet 490, Overland, Dort and Other

\$17.75

OVER 5,000,000 autos use 30x3 1/2 size tires. On this page we show a Ward Tire that will meet the requirements of any motorist using this size—and every tire is guaranteed to give you full value for your money. Hundreds of thousands of auto owners have saved money by using Ward's tires—you can do it, too. Mail your order to-night. In a very short time, Ward's Tires will be delivered to you and your pocket book will be several dollars ahead.

WE want all owners of Fords, Maxwells, Chevrolets, Overlands, Dorts and other light cars to see this Riverside 30x3 1/2 Clincher Cord Tire. Don't buy a Cord Tire until you do see it. It is full as large in size as a regular 31x4 fabric tire. The greater freedom from tire troubles obtained from this tire will alone make it worth the difference in price when compared with others—See "Offer to You" on page 765.

Riverside Road Grip Tire

GUARANTEED 6000 MILES

\$10.45

30x3 1/2

You can easily see the protection these thick, sturdy, Road Grip knobs give against side slipping. This protection is a valuable feature particularly noticeable on country roads which slope toward ditches. This well-known tread also helps your brakes by holding to the road in emergencies. Guaranteed 6000 miles. Ship. wt., 30x3, 10 1/2 lbs.; 30x3 1/2, 13 lbs.

464 E 3055—30x3 size. Each.....\$ 9.25
464 E 3059—30x3 1/2 size. Each..... 10.45

Riverside 10,000 Mile Cord

An exceptionally strong cord tire that gives Ford owners the same long mileage and freedom from trouble that Riverside Cord Tires have been giving to owners of large cars. This tire is about the same size as a 31x4 fabric tire. Its heavy construction insures great mileage and the large air space makes the car ride more easily. Fits 30x3 1/2 clincher rims perfectly. Ship. wt., about 17 lbs.
464 E 2971—Each... \$17.75

Riverside Giant

GUARANTEED 6000 Miles

Oversize for 30x3 1/2 Rims

\$13.65

Ward's Riverside Giant oversize tires are saving car owners money in every way—they go farther—give greater freedom from trouble—make cars ride a great deal smoother. We have sold thousands of Riverside Giants and they have proven everything we say for them. You'll call them "comfort" tires as they ride so much more smoothly, due to the increased air capacity—and they make your car look better. The tread is thicker so there is less possibility of punctures—in fact the whole tire aside from the bead is considerably larger than the regular 30x3 1/2 casing.

Riverside Giants give you the much desired oversize feature at a great saving in comparison with the price of 31x4 tires—still they have practically every advantage. They fit 30x3 1/2 clincher rims perfectly. All Riverside Giant Tires have the heavy, sure-hold Road Grip Tread. For Regular Clincher Rims. Ship. wt., about 14 lbs.

464 E 3050—Each, size 31x3 3/4 inches..... \$13.65

We recommend using 31x4 inner tubes due to the extra size, but a 30x3 1/2 can be used.

All Riverside Prices are Subject to Change Without Notice.

See Our Offer to You on Page 765.

Riverside Driving Tread

GUARANTEED 6000 MILES

\$9.25

30x3

Many motorists prefer this grooved driving tread design for the front wheels as it does make steering easier. It is a decided improvement over the regular smooth tread. The tread is raised so there is less road friction—they roll easily and are very attractive. Ship. wt., 10 and 12 1/2 lbs. respectively.

464 E 2951—Size, 30x3. Each.....\$9.25
464 E 2952—Size, 30x3 1/2. Each.....\$10.45

Bar Tread 4000 Mile Guaranteed Tires

These Bar Tread Tires are by far the biggest value we have offered in low priced guaranteed tires. We do not believe that the car owner looking for a good, low priced tire can equal this value. The tread is made of strong wear-resisting rubber and has a very effective non-skid surface. These tires will prove how Ward's make your dollars buy more miles of service.

Every Bar Tread Tire is fully guaranteed on a 4000-mile service basis and if in any case a defect should occur, we will replace or repair the tire on this basis. Bar Tread Tires are only furnished in 30x3 and 30x3 1/2 sizes in the regular clincher style.

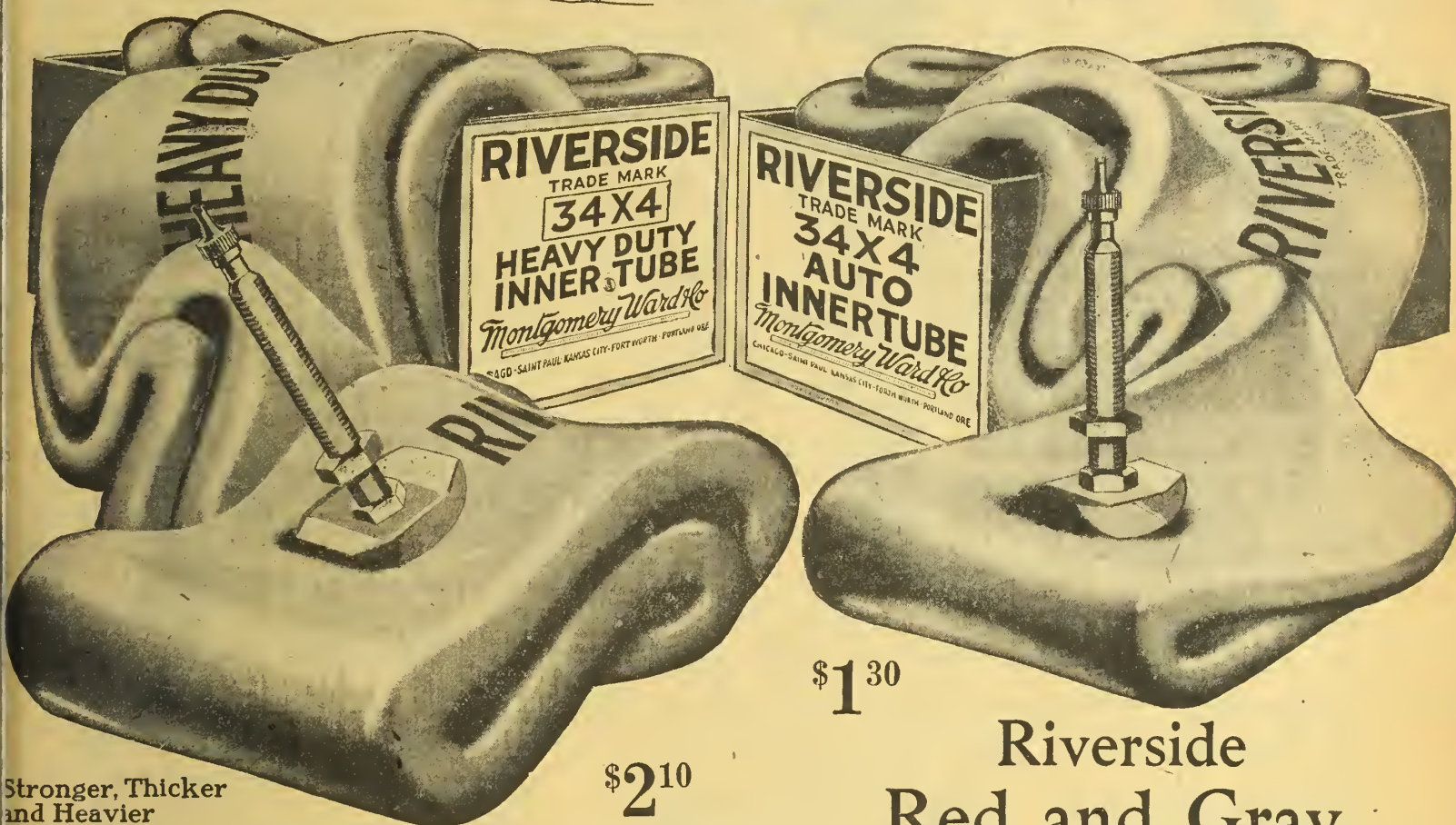
\$7.75

30x3

| Size | Article Number | Price | Ship. wt. |
|----------|----------------|--------|------------|
| 30x3 | 464 E 3046 | \$7.75 | 9 1/2 lbs. |
| 30x3 1/2 | 464 E 3048 | 9.35 | 12 lbs. |



Ward's GUARANTEED Riverside Inner Tubes



Stronger, Thicker
and Heavier

Riverside Heavy Duty Inner Tubes

Heavy Duty Inner Tubes are made only of the finest and strongest pure rubber gum and will give you years of service. They often outwear several casings and will give you complete satisfaction. The use of pure rubber gum makes them last longer,

Riverside Special Brown Heavy Duty Tube Prices No Tax

| Size Inches | Article Number | Price Each | Av. Ship. Wt., lbs. |
|----------------|-------------------|---------------|------------------------|
| 30x3 | 61 E 3214 | \$2.10 | 2¾ |
| 30x3½ | 61 E 3216 | 2.35 | 3 |
| 32x3½ | 61 E 3218 | 2.45 | 3½ |
| 31x4 | 61 E 3220 | 3.00 | 4 |
| 32x4 | 61 E 3222 | 3.05 | 4¼ |
| 33x4 | 61 E 3224 | 3.10 | 4½ |
| 34x4 | 61 E 3226 | 3.20 | 4½ |
| 32x4½ | 61 E 3228 | 3.55 | 4¼ |
| 33x4½ | 61 E 3230 | 3.60 | 4¾ |
| 34x4½ | 61 E 3232 | 3.70 | 5 |
| 35x4½ | 61 E 3234 | 3.75 | 5¼ |
| 36x4½ | 61 E 3236 | 3.85 | 5½ |
| 33x5 | 61 E 3238 | 4.10 | 5¼ |
| 35x5 | 61 E 3240 | 4.30 | 5½ |
| 37x5 | 61 E 3242 | 4.50 | 5¾ |

for it is not necessary to combine this high quality rubber with certain compounds required in making less expensive tubes. They are built by the laminated process which makes these tubes hold full air pressure exceptionally long without pumping. You will find them to be considerably thicker and stronger than regular inner tubes. The extra thickness and additional weight of Heavy Duty Tubes is a great aid in preventing pinches usually caused by the tube getting under the casing. Due to the use of exceptionally fine quality materials these tubes will stretch more, making them particularly suitable for use in cord and oversize casings. For those desiring the very best we recommend Riverside Brown Heavy Duty Inner Tubes.

\$1³⁰

Riverside Red and Gray Standard Made Inner Tubes

These are fine, strong standard made Inner Tubes built by the laminated process that has proven wonderfully successful in doing away with trouble caused by slow leaks. The laminating process is a method of making inner tubes from thin sheets of fresh, strong, lively rubber that are rolled around a form in a way similar to the manner you would roll a sheet of paper around a pencil. After several layers have been rolled one on top of the other they are placed in a vulcanizer and cured or vulcanized together so firmly that if you should cut the tube in two it appears to be just one thick sheet of rubber. This laminated construction makes Riverside Tubes air tight—free from porousness—and is one of the chief reasons why they hold air for such a long time without need of pumping. Our sales of Riverside Inner Tubes are so great that it is necessary to have new shipments coming in almost daily from the factory so you are always certain of brand new tubes that will give long service. Riverside Inner Tubes often wear faithfully for years. Notice our low prices. Red Inner Tubes are the most popular and our prices are undoubtedly lower than you expected to pay for gray.

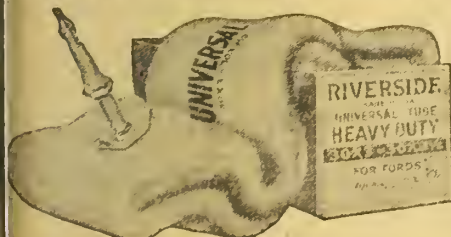
Red Inner Tubes

| Size Inches | Article Number | Price Each | Av. Ship. wt., lbs. |
|----------------|-------------------|---------------|------------------------|
| 28x3 | 61 E 3152 | \$1.35 | 2½ |
| 30x3 | 61 E 3154 | 1.45 | 2½ |
| 30x3½ | 61 E 3158 | 1.95 | 2¾ |
| 32x3½ | 61 E 3162 | 2.15 | 3 |
| 31x4 | 61 E 3170 | 2.30 | 3¼ |
| 32x4 | 61 E 3172 | 2.40 | 3½ |
| 33x4 | 61 E 3174 | 2.50 | 3¾ |
| 34x4 | 61 E 3176 | 2.60 | 3¾ |
| 32x4½ | 61 E 3179 | 3.10 | 3¾ |
| 33x4½ | 61 E 3181 | 3.20 | 4 |
| 34x4½ | 61 E 3182 | 3.30 | 4¼ |
| 35x4½ | 61 E 3184 | 3.40 | 4½ |

Gray Inner Tubes

| Size Inches | Article Number | Price Each | Av. Ship. wt., lbs. |
|----------------|-------------------|---------------|------------------------|
| 28x3 | 61 E 3102 | \$1.30 | 2¼ |
| 30x3 | 61 E 3104 | 1.35 | 2¼ |
| 30x3½ | 61 E 3108 | 1.85 | 2¾ |
| 32x3½ | 61 E 3112 | 2.00 | 3 |
| 31x4 | 61 E 3120 | 2.20 | 3¼ |
| 32x4 | 61 E 3122 | 2.25 | 3½ |
| 33x4 | 61 E 3124 | 2.30 | 3¾ |
| 34x4 | 61 E 3126 | 2.35 | 3¾ |
| 32x4½ | 61 E 3129 | 2.95 | 3¾ |
| 33x4½ | 61 E 3131 | 3.00 | 4 |
| 34x4½ | 61 E 3132 | 3.05 | 4¼ |
| 35x4½ | 61 E 3134 | 3.10 | 4½ |

Specials for FORDS



Heavy Duty Tubes Fit 30x3 or 30x3½ Tires

This is the tube for Ford owners who want the very best. It can be used in either 30x3 or 30x3½-inch tires and will give wonderfully good service. The rubber is pure gum and the

construction is exactly the same as the Heavy Duty Inner Tubes shown above. These tubes are thicker and stronger, so naturally will give better service. Ship. wt., 2¾ lbs.
61 E 3244—Price, each \$2.25

Riverside Universal Fit 30x3 or 30x3½ Tires

This special Riverside Universal Inner Tube is a big money and time saver for Fords on account of its fitting either the front 30x3, or rear 30x3½ casings. Instead of carrying two sizes you only need this one Universal size. On the rim side is an extra layer of rubber that makes the tube thicker and stronger at this point, which tends to prevent rim pinches. Ship. wt., 2 lbs. each. 61 E 3100—Price, each \$1.85



\$1⁸⁵

All Riverside Inner Tube Prices are Subject to Change Without Notice.

Don't Throw Away
Your Old Tires

Improved Suction Grip Tire Reliners

Guaranteed to
Make All Tires
Go Farther
\$3.15 and
Up



Suction Grip Reliners Often Help You to Get Thousands of Miles More Out of Old Tires

Using these improved liners is a quick, easy, economical way to stop wasting tire money. It is a shame to see the half worn tires that go into the junk pile because one little place became weak and the tire blew out. You wouldn't throw away a pair of shoes if the soles became weak in one place, would you? To put this reliner in a weakened tire is just as sensible an idea as half-sooling your shoes—and it will save you a great deal of money. Order two or three now and save your old tires.

When you use Suction Grip Reliners the tread is so much thicker that it stops ordinary tacks reaching the tube and usually bends small nails. If it were only for the freedom from punctures and blowout troubles, they would be worth more than the price we ask—but besides these features you have the important point of cutting down tire expenses and the pleasure of knowing that you are getting your money's worth out of each tire. Suction Grip Reliners give a clean, smooth surface for the inner tube.

Improved Features
Suction Grip Reliners are a great improvement over the old style liners. Built right into the rubber tread are little suction cups that form a vacuum which holds the inner tire in place, prevents slipping, thus practically eliminating friction. This invention does away with flaps, wires, etc., making it possible for you to slip this reliner into the casing as easily as you would a tube.

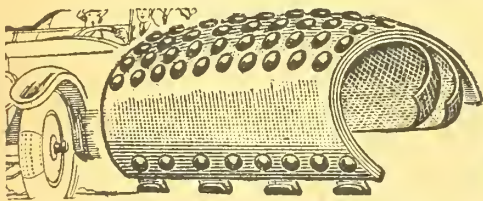
Suction Grip Reliner Prices

| Article Number | Size Inches | Ship. Wt., Lbs. | Price Each |
|----------------|-------------|-----------------|------------|
| 61 E 1283 | 30x3 | 4½ | \$3.15 |
| 61 E 1284 | 30x3½ | 5 | 3.55 |
| 61 E 1285 | 32x3½ | 6 | 3.75 |
| 61 E 1286 | 31x4 | 6½ | 4.30 |
| 61 E 1287 | 32x4 | 7 | 4.40 |
| 61 E 1288 | 33x4 | 7½ | 4.50 |
| 61 E 1289 | 34x4 | 8 | 4.60 |
| 61 E 1290 | 32x4½ | 9 | 4.90 |
| 61 E 1291 | 33x4½ | 9½ | 5.00 |
| 61 E 1292 | 34x4½ | 9½ | 5.10 |
| 61 E 1293 | 35x4½ | 9½ | 5.20 |
| 61 E 1295 | 35x5 | 10 | 5.95 |

Made Similar to Tires

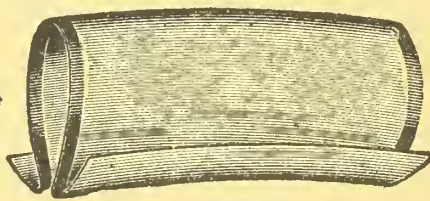
Suction Grip Reliners are made very much like regular tires except they do not have the heavy beads at the bottom. They are made over forms like a tire—have several layers of fabric and a cushion of rubber on the tread similar to regular tires. The edges at the bottom are tapered or thinned down so they make a continuous smooth surface for the inner tube. We guarantee Suction Grip Reliners against defects in material or workmanship.

Tire Boots—Patches and Covers



Stretchless Hook-On Tire Boot

The combination of a heavy, chrome leather studded tread and 2 layers of fine fabric makes a tough and durable boot that will far outlast the ordinary boots. Makes a strong, neat repair for blow-out. Av. ship. wt., 14 to 18 ozs.



Good Low-Priced Double Flap Inner Patch

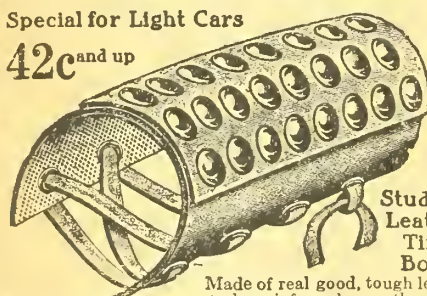
A good serviceable patch. Fits snug to casing. Made of good grade fabric. Flaps held by tire bead prevent creeping and bulging. Suitable for both clincher and straight side tires.

| For Clincher Tires Only. | | | For Straight Side Tires Only. | | |
|--------------------------|--------|-------|-------------------------------|--------|-------|
| Number | Size | Price | Number | Size | Price |
| 61 E 1219 | 3 in. | 69c | 61 E 1224 | 3½ in. | 74c |
| 61 E 1220 | 3½ in. | 74c | 61 E 1225 | 4 in. | 82c |
| 61 E 1221 | 4 in. | 85c | 61 E 1226 | 4½ in. | 87c |
| | | | 61 E 1227 | 5 in. | 92c |

| Article Number | Size | Shipping Weight | Price Each |
|----------------|--------|-----------------|------------|
| 61 E 1273 | 3 in. | 6 oz. | 20c |
| 61 E 1274 | 3½ in. | 8 oz. | 26c |
| 61 E 1275 | 4 in. | 9 oz. | 29c |
| 61 E 1276 | 4½ in. | 10 oz. | 33c |
| 61 E 1277 | 5 in. | 13 oz. | 38c |

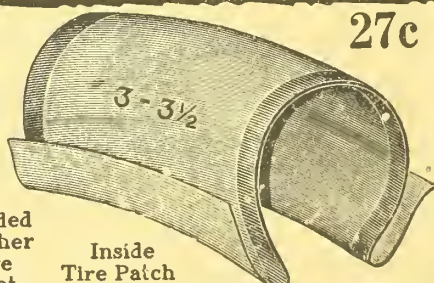
Special for Light Cars

42c and up



Studded Leather Tire Boot

Made of real good, tough leather stock reinforced on the tread with an extra layer thickly studded with broad rivets. Long tough lace included. Ship. wts., about 8 and 10 oz.
61 E 1802—For 3-inch tires. Price, each, 42c
61 E 1803—For 3½-inch tires. Price, each, 47c



Inside Tire Patch

Made of several plies of friction fabric with a good grade of rubber, and thoroughly vulcanized. Side flaps enable you to fit patch accurately to inside of casing under clinch, preventing tube from rubbing against any sharp edge and becoming chafed. Will fit either front 3-inch or rear 3½-inch casing on Ford cars. Ship. wt., 7 oz.
61 E 1801—Price, each 27c

White Stripe Tire Covers

These tire covers have two white stripes around the center which gives them a very attractive appearance. Made of water-proof enameled fabric. Fastens with six snap buttons. Fit any make of plain or non-skid tire. Cord tires take oversize covers. Average shipping weight, about 2½ pounds.

| Art. No. | Inches | Price | Art. No. | Inches | Price |
|-----------|--------|--------|-----------|--------|--------|
| 61 E 1830 | 30x3 | \$2.00 | 61 E 1838 | 34x4½ | \$2.65 |
| 61 E 1831 | 30x3½ | 2.05 | 61 E 1839 | 34x4½ | 2.75 |
| 61 E 1832 | 32x3½ | 2.20 | 61 E 1840 | 36x4½ | 2.85 |
| 61 E 1833 | 31x4 | 2.25 | 61 E 1841 | 33x5 | 2.65 |
| 61 E 1834 | 32x4 | 2.35 | 61 E 1842 | 33x5 | 2.80 |
| 61 E 1835 | 33x4 | 2.45 | 61 E 1843 | 36x5 | 2.95 |
| 61 E 1836 | 34x4 | 2.55 | 61 E 1844 | 36x5½ | 3.05 |
| 61 E 1837 | 32x4½ | 2.65 | 61 E 1845 | 38x5½ | 3.30 |
| 61 E 1838 | 33x4½ | 2.75 | | | |

Rim Lug Shims Stop the Squeaks



These hold tight wedge plates applied under the lugs; tighten loose and squeaky demountable rims. Easily and quickly applied to all kinds and sizes of rim lugs. Cannot lose off. Ship. wt., set of six, 5 oz.
61 E 1783—Price of six 24c

Tire Supplies That Make Tires Last Longer

Super Service Fabric Reliners Strengthen Weak Tires

Thousands of auto owners have found these Reliners a sure way to cut tire costs way down and obtain unusual freedom from trouble. They are made of fine grade fabric, layer on layer, completely saturated and bound by high-grade rubber. Easy to put in casing and being self-cementing they become practically inseparable.

| Article Number | Size Inches | Price Each | Ship. Weight, Pounds |
|----------------|-------------|------------|----------------------|
| 61 E 1300 | 28x3 | \$1.25 | 3¼ |
| 61 E 1301 | 30x3 | 1.35 | 3½ |
| 61 E 1302 | 30x3½ | 1.50 | 3¾ |
| 61 E 1304 | 32x3½ | 1.70 | 3¾ |
| 61 E 1308 | 31x4 | 1.90 | 4¼ |
| 61 E 1309 | 32x4 | 2.10 | 4½ |
| 61 E 1310 | 33x4 | 2.25 | 5 |
| 61 E 1311 | 34x4 | 2.45 | 5½ |
| 61 E 1347 | 32x4½ | 2.45 | 5½ |
| 61 E 1348 | 33x4½ | 2.55 | 6 |
| 61 E 1314 | 34x4½ | 2.65 | 6¼ |
| 61 E 1315 | 35x4½ | 2.75 | 6½ |
| 61 E 1316 | 36x4½ | 2.95 | 7 |
| 61 E 1349 | 35x5 | 3.25 | 7½ |
| 61 E 1318 | 37x5 | 3.40 | 8 |



Supplies for Fords
Pages 782 to 788

Super Service Leather Reliners For Extra Hard Service

Made of tanned chrome leather, molded to fit inside of casing. Will give you hundreds and often thousands of miles extra service from tires, that if run without inside protection would be a total waste. Their strength is three times greater than fabric used in the construction of tires. Will practically outwear two outer casings, and lengthen the life of tires. Will turn small nails, tacks, etc. Easy to apply. Clean inside of outer casing with gasoline, then insert the reliner. Will cement to casing after air has been applied. Can be removed from old tires and placed in others.

| Article No. | Size In. | Price Each | Ship. Wt. Lbs. |
|-------------|----------|------------|----------------|
| 61 E 1321 | 30x3 | \$2.60 | 1½ |
| 61 E 1322 | 30x3½ | 3.75 | 2¼ |
| 61 E 1324 | 32x3½ | 4.25 | 2¼ |
| 61 E 1326 | 31x4 | 4.35 | 2½ |
| 61 E 1327 | 32x4 | 4.65 | 2½ |
| 61 E 1328 | 33x4 | 5.15 | 2½ |
| 61 E 1331 | 34x4½ | 5.80 | 3¼ |
| 61 E 1332 | 35x4½ | 6.10 | 3¼ |
| 61 E 1333 | 36x4½ | 6.35 | 3¼ |



Inner Tube Patches

Rubber Patch Outfit

Outfit contains a strip of patching rubber, a tube of rubber cement, and a strip of emery paper. Patch stays on and will outwear inner tube. Clean tube around puncture with gasoline, roughen surface with emery paper, cut patch from sheet to proper size. Apply a coat of cement to the tube and moisten the raw side of patch with cement. Allow both to dry a few minutes, then stick patch firmly to tube. Screw-top containers. Ship. wt., 6 and 8 ounces.

61 E 1344—Patch size 3x12 in. Price, of outfit, 26c
61 E 1345—Patch size, 3x24 in. Price, of outfit, 35c



Riverside Cementless Inner Tube Patches

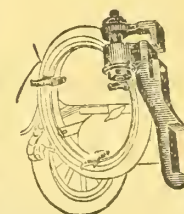
For repairing punctures in auto tubes. High quality Para rubber. Simply moisten one side with a little gasoline, press firmly over place to be repaired, let dry for a few minutes and tube is ready for use. When tube is placed in casing, the friction heat while running cements patch firmly to the tube. Put in neat, compact box containing 10 patches, 2 inch size. Ship. wt., 5 oz.

61 E 1487—Per box, 23c



ERP Spare Rim Tire Carriers

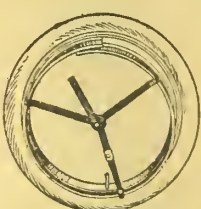
\$3.15 Set of 3



Always carry two extra inflated tires. You'll enjoy your trips more as two punctures will not mean the delay of pulling out the tube patching, etc. The Erp carrier consists of three especially designed holders that clamp over flange of your present carrier—no drilling—attached with ordinary monkey wrench. Ship. wt., 5½ lbs.
61 E 1799—For all Dodge demountable rims. Per Set, \$3.15
61 E 1797—For Chevrolet 490—Overland 4 and Saxon 3½-inch rims. Per Set, \$3.15
61 E 1798—For Buick, Briscoe, Chevrolet Baby Grand, Dort, Grant, Hupmobile, Mitchell, Oldsmobile, Oakland, Overland and Saxon 4-inch rims. Per Set, \$3.15

Lawco Quick Action

Rim Tool \$3.20



Designed to fit any size or make split rim and is guaranteed not to injure rim, tube or casing. Simply adjust to the rim, push on center lever and rim opened and held contracted until ready to replace. Automatic lock holds rim when you work on tire. To put tire on rim place in position and release tool. Tool also used for expanding rim when putting on the tire so it is not necessary to hammer or pry as with ordinary tools. Particularly adaptable to large rims. Folds up like knife so it takes very little space. Made of steel. Ship. wt., abt 5½ pounds. \$3.20
61 E 1796—Price, each

Save Money by Using a

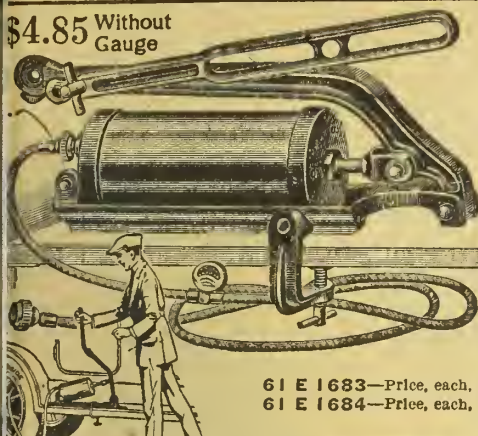
Ward's De Luxe Battery

See page 777

Pumps and Jacks

That Make Tire Changing an Easy Job

\$4.85 Without Gauge

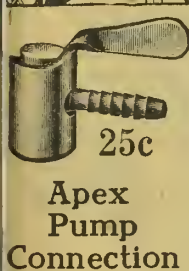


Inland I. X. L. Running Board Tire Pump

The finest, most substantial, easy operating hand pump we have ever seen. A woman or child can pump up even large size tires with ease. A real friend when there's a tire to pump. Handle opened is 25 inches long—giving leverage many times greater than ordinary pumps. Can be quickly attached to either running board.

Leak-proof, seamless steel cylinder, 3x6 1/4 inches, polished—patented folding handle—folding clamp attached to base—strong malleable iron base—fine quality leather plunger, specially treated—pump folds up so it takes little space, 3x4 1/2 x 13 1/2 inches—no loose parts to rattle or lose—built to last for many years. Complete, with 7 feet of good quality hose. Shipping weight, about 9 lbs.

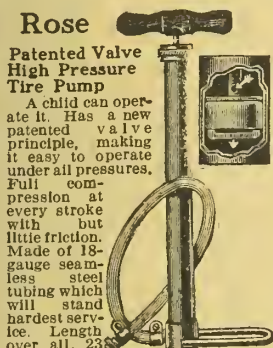
61 E 1683—Price, each, without gauge \$4.85
61 E 1684—Price, each, with gauge 5.45



Apex Pump Connection

For foot and power pumps. Just place connection on the valve, push the lever and the washer fits absolutely air tight with a grip that will not slip. Release the lever and it lifts off freely. No pushing, holding, crowing or fussing. Ship. wt., 2 oz.

61 E 1742—Price, each, 25c



Rose Patented Valve High Pressure Tire Pump

A child can operate it. Has a new patented valve principle, making it easy to operate under all pressures. Full compression at every stroke with but little friction. Made of 18-gauge seamless steel tubing which will stand hardest service. Length over all, 23 in. Diameters 1 1/2 and 1 1/4 in. Ship. wt., 3 1/2 and 4 lbs.

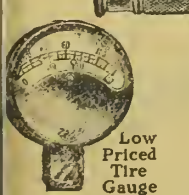
61 E 1653—1 1/4-in. size. \$2.15
Price, each,
61 E 1650—1 1/2-in. size. 2.57
Price, each,

Three Cylinder Tire Pump

A very powerful hand pump. Thoroughly tested before leaving factory. Three cylinders of heavy seamless drawn tubing, highly polished and rust-proof. Diameters of cylinders, 1 1/2, 1 1/4, and 1 1/8 inches. Length, 18 in. Length of pump, over all, 22 inches. Base is heavy casting, enameled. If you want a big, powerful, quick-acting hand-pump, get this and inflate your tires with little exertion. Ship. wt., 9 lbs.

61 E 1652—Price, each \$2.95

Tire Gauges



Hand stays stationary at pressure indicated until reset. Made of brass, finely nickel-plated. Ht., 2 inches; diameter, 1 1/2 inches; thickness, 3/8 inch. Ship. wt., 4 oz.

61 E 1701—Price, each, 73c

Twitchell Tire Gauge

Has the new positive lock stop. Made of brass, nickel-plated. Length, 3 1/4 in.; diameter, 1 1/2 in.; thickness, 3/8 in. Ship. wt., 2 oz.

61 E 1710—Price, each, \$1.50

Schrader Tire Gauge

Indicator stays up until reset. Vest Pocket Leather Carry Case. Made of brass, nickel-plated. Length, 2 1/2 in.; diameter, 1 1/4 in.; thickness, 3/8 in. Ship. wt., 3 oz.

61 E 1702—Price, each, \$1.50



\$4.95

Long Handle Foot Lift Jack

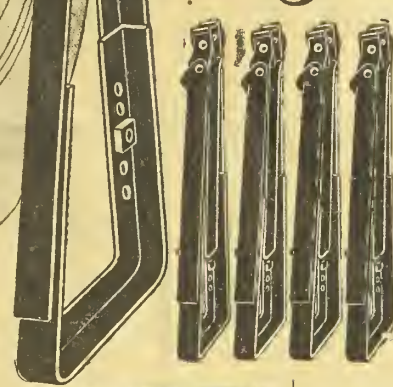
Keeps You Away from the Dirt.
This long handle, foot lift-jack is designed especially so that the motorist will not need to get down in the mud or dirt. The extra long handle can be adjusted very easily—simply pull open as it telescopes into short length. The adjustable foot lift may be set at any height from 4 to 10 inches from the ground. The construction of the jack combines the most scientific principle of leverage, the finest material and careful workmanship. Height, 11 inches. Raises, 6 inches. For cars up to 4,500 lbs. Ship. wt., 12 lbs.

61 E 1618—Price, each, \$4.95

Tire Saving Jacks

Stop Wasting Miles on the Garage Floor
These Jacks Help Your Tires to Last Longer

Set of Four \$3.25

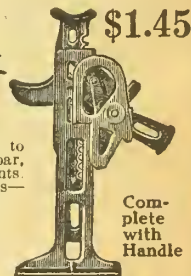


Tires should not be allowed to stand on oily floors, or with tire chains on over night. Thousands of automobile tires are damaged in this way every season. When your car is not in use, lift it and give the tires a rest. By keeping the weight off the tires the fabric and rubber are relieved of unnecessary strain so that they will give a great deal more mileage. You'll find it very profitable to use these. Operated by practically one operation of arm or foot. Use tires only when you are running the car. If you do this you will cut your tire bills greatly. Made entirely of steel—no castings. Easily operated. Light, neat, simple and thoroughly dependable. Smooth surface where hub rests. Will last a lifetime. Pay for themselves in actual tires saved from ruin. Investment worth making. Note low price. Adjustable to fit all machines. Ship. wt., about 16 lbs.

461 E 1610—Price, set of four, \$3.25

Double Duty Jack

With Foot Lift



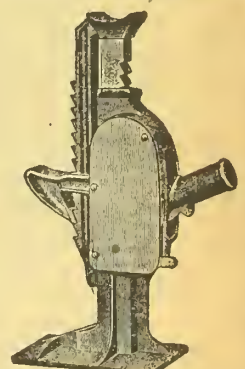
Constructed entirely of malleable iron. Speedy ratchet type. Simple construction, exceptionally easy to operate. Fitted with step bar, giving extra range of adjustments. Adjustable from 10 to 16 inches—foot lift from 6 to 11 inches. For cars up to 3,600 lbs. Ship. wt., about 5 1/2 lbs.

61 E 1613—Price, each, \$1.45

Complete with Handle

Giant

Foot Lift Jack

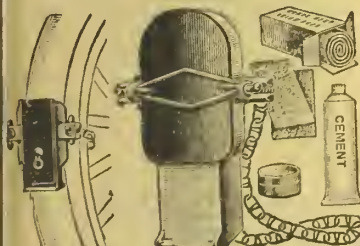


Designed to be used on cars with different height front and rear axles. The foot can be set at any height from 4 1/4 to 10 3/4 inches. Lift of top from 11 to 17 inches. Construction and material very best. Suitable for cars weighing up to 5000 lbs. Complete with handle. Ship. wt., about 12 lbs.

61 E 1605—Price Each, \$3.60

\$3.60

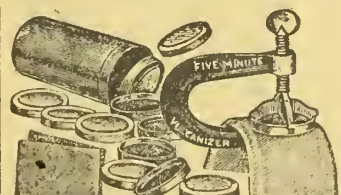
Vulcanizers and Repair Materials for Tires and Inner Tubes



Handy Vulcanizer

For Tires and Inner Tubes
Does a first-class vulcanizing job on either casings or inner tubes. You don't even need to watch it—no gauge or thermometer necessary. Merely light the burner and when it goes out the job is finished. The steam chamber consists of a special yellow casting containing about 2 ounces of water sealed tightly with a screw plug. The water will last about 2 years before needing re-filling. Will vulcanize a good size patch on either casing or tube as he highly polished face is 5 1/2 x 3 1/2 inches. Every part is strongly made of iron, finished in white, nickel and black. Ship. wt., about 3 1/2 lbs.

61 E 1411—Complete Outfit with cement and rubber \$2.75



5 Minute Inner Tube Vulcanizer

85c
Complete Outfit

It takes no previous experience in vulcanizing to operate this vulcanizer. A beginner can use it perfectly. With each vulcanizer there are 12 patches, complete with heating elements which do away with the necessity of using gasoline. There is no flame to burn the tube. Works in the wind so you can readily put on a sure hold patches by the roadside. The whole outfit is small enough to slip into the pocket. The outfit consists of the vulcanizer, 12 patches and 12 heating discs. Ship. wt., outfit, 1 lb. Patches and discs only, 8 oz.

61 E 1415—Complete Outfit 85c
61 E 1416—12 Heat Units with Patches 55c

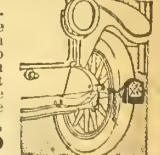


\$2.35

Adamson's Universal Vulcanizer

A well known reliable vulcanizing outfit for vulcanizing casings and inner tubes. Simply place patch on tube or casing, attach vulcanizer, put in gasoline with the measure furnished, light it, and no further attention is needed. In a few minutes you have a perfect repair. Will soon pay for itself. Can't burn, scorch or injure when used as directed. Made of cast iron, japanned black, 3 1/2-inch polished square face. Ship. wt., 4 lbs.

61 E 1401—Price, each \$2.35

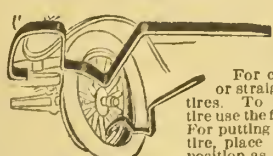


Speedometer Parts

Complete Speedometer Shafts \$2.00 and up
Complete with end fittings to fit Stewart and other Speedometers and are entirely interchangeable. Ship. wt., about 4 lbs.

61 E 2208—Stewart, 50 in. \$2.00
61 E 2209—Stewart, 54 in. 2.00
61 E 2210—Stewart, 60 in. 2.15
61 E 2211—Stewart, 66 in. 2.25
61 E 2212—Stewart, 72 in. 2.35

Han-D Tire Tool



For clincher or straight side tires. To remove tire use the flat end. For putting on the tire, place tool in position as shown, then the pressure on the end forces the tire on the rim. Positively will not injure the casing or tube. Made of drop forged steel. Ship. wt., 3 lbs.

61 E 1849—Price, each, 53c



Riverside Tire Cut Filler

For repairing cuts and holes in automobile casings. Made of very heavy rubber gum, scientifically compounded. Put up in large tubes, 2 1/2 x 1 1/2 inches, with nozzle spout, making it very convenient. Quickly solidifies and becomes a part of the tire. Ship. wt., 12 oz

61 E 1556—Each, 36c



Michelin Mastic

For filling and cementing cuts in casing and repairing punctures in inner tubes. Not a liquid, but a plastic cement. Cuts or dig-outs in casings, when properly repaired with this, will not reopen with wear and hard service, but are permanently sealed. 2-ounce can. Ship. wt., 5 oz.

61 E 1480—Each 26c



Vulcanizing Material Outfits

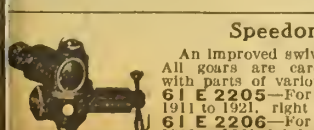
For use with steam or hot water, gasoline or gas vulcanizers. Outfits packed in screw-top cartons with directions. Aver. ship. wt., 10 oz.

61 E 1476—Contains one can Vulcanizing Cement, and one large sheet of 2 1/2 x 24-inch tube stock. Price of outfit, 35c



61 E 1477—Contains a piece of 30-minute cure tread stock. Size, 2 1/2 x 24 inches. One can Vulcanizing Cement. Price of outfit, 35c

61 E 1478—Combination Outfit. Contains a can of Vulcanizing Cement; one 2 1/2 x 12-inch sheet of tube stock, one 2 1/2 x 12-inch sheet of 30-minute cure casing stock. Price of outfit, 37c

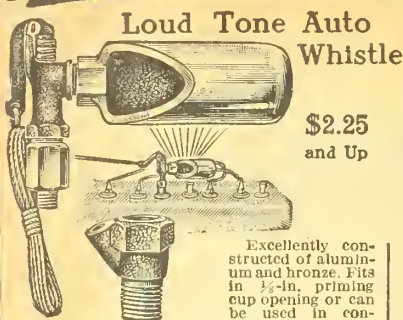


Speedometer Swivel Joints

An improved swivel joint made of fine quality material. All gears are carefully fitted. Perfectly interchangeable with parts of various speedometers. Ship. wt., 1 1/4 lbs.

61 E 2205—For Stewart Speedometers, 2 1/2 to 1911 to 1921, right hand \$1.95
61 E 2206—For Stewart Speedometers, 2 1/2 to 1911 to 1921, left hand \$1.95

Over 1,000,000 Riverside tires sold direct to auto owners

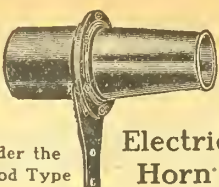


Loud Tone Auto Whistle

\$2.25 and Up

Excellent construction of aluminum and bronze. Fits in 1/2-in. priming cup opening or can be used in connection with spark plug placed in special attachment. Wonderful aid in preventing accidents. Self-cleaning construction. Furnished complete with cord. Ship. wt., about 1 pound.

- 61 E 3444—To fit 1/2-in. Priming Cup hole. Price, each \$2.25
- 61 E 3445—Whistle with attachment for 1/2-in. spark plugs. Price each, \$2.70
- 61 E 3446—Whistle with attachment for 1/2-in. spark plugs. Price, each \$2.70



Electric Horn

Under the Hood Type

A small electric motor rotates against the horn diaphragm so the quality of the tone can be varied by a simple adjustment. Gives loud, clear warning. It operates from any 6-volt or 12-volt storage battery or from dry cells. Operates with minimum electric power. Furnished in all black finish. Complete with cord and push button. Ship. wt., 5 pounds.

- 61 E 3396—Length, 8 1/2 in. for 6-volt. Price, each \$4.70
- 61 E 3397—Length, 11 in. for 12-volt. Price, each \$5.20

Loud Tone Hand Horn

Mechanism is simple and operates easily. Special bracket fits either right or left side of car and is arranged for easy attaching. Body and arm pressed steel, beautifully enameled black. Length, over all, 8 1/2 inches; diameter of bell, 4 3/4 inches. Ship. wt., 4 lbs.

- 61 E 3376—Price, each \$2.75



\$18.50 Set of 4

Lower On Standard

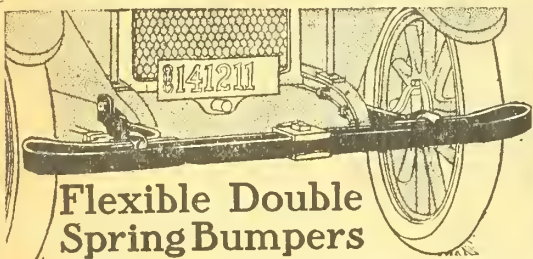
Smooth Action Rebound Absorbers

Prevents the violent recoil after striking humps and softens the shock. Spring breakage is practically unknown due to the stopping of rebound at the normal height of the car on its springs. The upward movement of the body is gradually held preventing excessive spreading of the springs which causes most of broken springs. One set of these absorbers costs less than a pair of shock absorbers. Even if you use shock absorbers these will make your car ride much better. They are exceptionally easy to attach as it is not necessary to take off the wheels. All necessary fittings included with complete instructions. Ship. wt. set of 4 20 pounds.

Note

We can furnish Rebound Absorbers for all cars. If your car is not shown here, order by number 261 E 4087 allowing \$18.50 for set of 4. Give name of car and model. Shipped from Factory in Chicago.

| Article No. | Fits Car | Models | Price |
|-------------|-----------------------|---------------------------|---------|
| 461 E 4070 | Hupmobile... | 1918, 1919, 1920, 1921. | \$18.50 |
| 461 E 4071 | Elgin... | 1919, 1920, 1921. | 18.50 |
| 461 E 4072 | Overland Four Liberty | 1919, 1920, 1921. | 18.50 |
| 461 E 4073 | Maxwell | All Models. | 18.50 |
| 461 E 4074 | Oakland... | 1915, '16, '17, '18, '19. | 18.50 |
| 461 E 4075 | Oldsmobile... | 1920, 1921. | 18.50 |
| 461 E 4076 | Essex... | 1919, 1920, 1921. | 18.50 |
| 461 E 4077 | Dodge... | 1917, '18, '19, '20, '21. | 18.50 |
| 461 E 4078 | Chandler... | 1920, 1921. | 18.50 |
| 461 E 4079 | Buick... | 1919, 1920, 1921. | 18.50 |
| 461 E 4080 | Auburn... | 1920, 1921. | 18.50 |
| 461 E 4081 | Willys-Knight... | 1920, 1921. | 18.50 |
| 461 E 4082 | Studebaker... | All models. | 18.50 |
| 461 E 4083 | Chevrolet... | All models, rear 2 only | 9.35 |



Flexible Double Spring Bumpers

A double spring bumper of tempered steel built to stand the most severe abuse. The two steel springs are solidly fastened together in the center with a rigid brace thus distributing any strain or blow equally to both sides of the car frame. Its construction combines the rigidity of the solid bar bumper with the unusual advantages of the spring bar type. Will stand up under a blow that would bend or crush a channel bar bumper.

Light in weight but very neat and will add to the appearance of any car. Suitable for all autos where frame extends beyond radiator. State name, model and year of your car. Ship. wt., complete, about 32 lbs.

| Front Bumpers Only | | |
|--------------------|---------------|----------------|
| Article Number | Size of Tires | Price Per Pair |
| 461 E 3469 | 30x3 | \$10.45 |
| 461 E 3470 | 30x3 1/2 | 11.45 |
| 461 E 3471 | 32x3 1/2 | 12.45 |
| 461 E 3472 | 32x4 | 13.45 |
| 461 E 3473 | 32x4 1/2 | 14.45 |
| 461 E 3474 | 32x4 3/4 | 15.45 |
| 461 E 3475 | 32x4 1/2 | 16.45 |
| 461 E 3476 | 32x4 3/4 | 17.45 |
| 461 E 3477 | 32x4 1/2 | 18.45 |
| 461 E 3478 | 32x4 3/4 | 19.45 |
| 461 E 3479 | 32x4 1/2 | 20.45 |
| 461 E 3480 | 32x4 3/4 | 21.45 |
| 461 E 3481 | 32x4 1/2 | 22.45 |
| 461 E 3482 | 32x4 3/4 | 23.45 |

Rear Bumpers

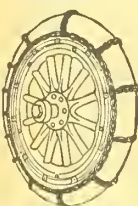
Don't take a chance on the man in the car behind you. Protect yourself against his carelessness by equipping your car with a rear bumper. State plainly the make, model and year of your car, whether fitted with a rear tire carrier and whether one or two tires are carried. We can furnish rear bumpers for a large number of cars complete with all necessary fittings. Finished in black or nickel. Ship. wt., 32 pounds.

- 261 E 3483—Black finish. Price, each \$10.65
- 261 E 3484—Nickel finish. Price, each \$11.65

Rear Bumpers shipped from Factory in Southern Michigan.

Genuine Weed Anti-Skid Chains

Prevent skidding—run free on castings and do not cut tires. Cross chains of special annealed wire stock. Every pair stamped "Weed." Put up in brown cloth bag.



| Article Number | Size of Tires | Price Per Pair | Ship. Wt. Pounds |
|----------------|---------------|----------------|------------------|
| 61 E 6514 | 30x3 | \$3.55 | 11 1/2 |
| 61 E 6515 | 30x3 1/2 | 3.95 | 13 1/2 |
| 61 E 6516 | 32x3 1/2 | 4.45 | 14 1/2 |
| 61 E 6517 | 31x4 | 4.85 | 14 |
| 61 E 6518 | 32x4 | 4.95 | 14 |
| 61 E 6519 | 33x4 | 5.35 | 15 |
| 61 E 6520 | 34x4 | 5.75 | 15 1/2 |
| 61 E 6521 | 32x4 1/2 | 5.80 | 16 |
| 61 E 6522 | 33x4 1/2 | 5.90 | 17 |
| 61 E 6523 | 34x4 1/2 | 5.95 | 17 1/2 |
| 61 E 6524 | 35x4 1/2 | 6.45 | 18 1/2 |
| 61 E 6525 | 36x4 1/2 | 6.95 | 19 1/2 |
| 61 E 6526 | 33x5 | 7.15 | 20 |
| 61 E 6527 | 35x5 | 7.25 | 21 |
| 61 E 6528 | 37x5 | 7.95 | 23 1/2 |

Mud Hooks



If you are ever stalled in the mud or sand all that is necessary is to put two or three on each rear wheel and you'll get out in a jiffy. They do away with the unclean and unpleasant job of wrapping rope around rear wheels. Can be put on wheels in deep mud, where impossible to put chains and ropes. Will not injure tires.

- Made of tough, black enameled iron. Straps not included. Ship. wt., each, about 2 lbs. 55c
- 61 E 6503—3-3 1/2 in. Each 57c
- 61 E 6504—4-4 1/2 in. Each 57c
- 61 E 6505—5-5 1/2 in. Each 59c

| Weed Cross Chains | | |
|-------------------|-----------|------|
| Number | Size | Each |
| 61 E 6539 | 3 in. | 5c |
| 61 E 6540 | 3 1/2 in. | 7c |
| 61 E 6541 | 4 in. | 8c |
| 61 E 6542 | 4 1/2 in. | 9c |
| 61 E 6543 | 5 in. | 11c |

Used in taking off or putting on cross chains, or in repairing side chains. Operates easily. Length, 18 in. 12 1/2 inches. Ship. wt., 1 1/2 pounds. 61 E 6506—Each 49c

Every Riverside Tire is Fully Guaranteed



Genuine Liberty Siren

Plays 16 Musical Notes. No matter how loud the rattle and rumble of traffic the Liberty Siren penetrates above the noise and sounds its melodious signal in a way that commands attention. Attaches to the exhaust manifold under the hood of any pleasure car, truck or motor boat. Operates by the simple pull of a cord attached to dash or steering wheel column. Costs nothing to operate. Does not in any way interfere with the mechanical operation of your car. Has 3/4-inch standard pipe thread. Full instructions for attaching included. Ship. wt. 1 lb.

- 61 E 3436—Price, each \$1.60

Spring Arm Channel Bar Bumper

An excellently designed channel bar bumper with universal bracket that can be attached to all autos having extended front frames. The bar is two-inch size and is connected to the frame by means of two shock-absorbing spring arms that flex freely when the bumper hits an object. The action of the springs prevents breakage so that this bumper will stand hard jolts without injuring it, where ordinary straight bar bumpers would break. If your car has an extended front frame, this bumper will fit it no matter whether it has splash pans or not. This is one of the best bumpers you can buy near the price we ask. Ship. wt., about 20 pounds.

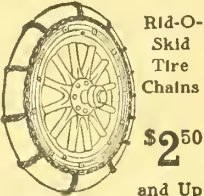
- 461 E 3538—All black finish, each \$6.65
- 461 E 3539—Nickel finish bar, black arms, each 7.45

Genuine Boyce Motometers



Placed on radiator cap, the motometer indicator liquid warns the driver of engine troubles before danger occurs.

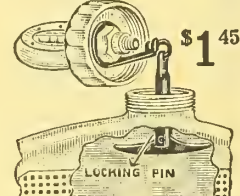
- Large Model**—Beautifully finished in black and nickel. Beveled plate glass crystal. Height, 3 3/4 in. Width, 3 1/2 in. Ship. wt., 1 1/2 pounds. \$7.30
- 61 E 3613—Price, each \$7.30
- New Universal Model**—Similar to large model. Height, 3 1/4 in. Width, 2 3/4 in. Ship. wt., 1 1/4 pounds. \$5.20
- 61 E 3623—Price, each \$5.20
- New Universal for Overlands**—Same size and style as 61 E 3623 with special fitting for all Overland and Willys-Knight radiator caps. Shipping weight, 1 1/4 lb. \$5.20
- 61 E 3624—Price, each \$5.20
- Motometer Junior**—An efficient reliable small model. Height, 3 in. Width, 2 1/2 in. Ship. wt., 1 pound. \$3.70
- 61 E 3607—Price, each \$3.70
- Motometer Midget**—Height, 2 1/2 in. Width, 2 1/4 in. Ship. wt., 6 ounces. \$1.70
- 61 E 3601—Price, each \$1.70



Rld-O-Skid Tire Chains

Same type as Weed Chains but made of less expensive materials. Ship. wt., per pair, 12 to 16 lbs.

| Art. No. | Size Inches | Per Pair |
|-----------|-------------|----------|
| 61 E 6532 | 30x3 | \$2.50 |
| 61 E 6533 | 30x3 1/2 | 2.65 |
| 61 E 6534 | 32x3 1/2 | 2.80 |
| 61 E 6535 | 31x4 | 2.90 |
| 61 E 6536 | 32x4 | 3.00 |
| 61 E 6537 | 33x4 | 3.10 |
| 61 E 6538 | 34x4 | 3.20 |



Motometer Lock

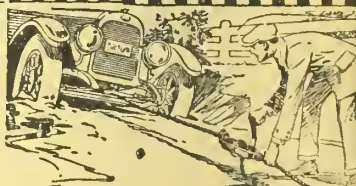
Drops down through the filler hole and opens up in such a manner that it cannot be taken out. Attached to the motometer by special fittings. Will fit all cars except Willys-Knight, Overland, Starns and Nash. Cannot be unscrewed—does not change appearance and needs no adjusting. Holds motometer and cap while filling radiator. Ship. wt., 8 ounces. 61 E 3587—Price, each \$1.45

Steel Tow Rope



An absolute necessity for tourists and handy for all motorists. Made of best steel wire cable. Securely attached hooks on each end. Strong enough to handle the heaviest cars on a hard pull. Rolls up so it fits in small space. Ship. wt. about 6 lbs. 61 E 6500—Price, each \$3.15

Smith Lift Auto Puller



A simple, light weight device that has a powerful pull or lift. Should be carried by every tourist or motorist traveling on country roads. Will save its price the first time used. No more need to stay stuck for hours and pay for being pulled out. Just fasten to stake driven in ground, a tree or post and attach to car—a few turns on handle gets you. Also handy to use in garage. Self-locking. Furnished 8 feet of pulling chain, 4 feet of anchor chain and two sizes. Small size for cars up to 3,000 lbs. Large size for heavy cars and trucks. Ship. wts., 8 and 20 lbs. 61 E 6469—Small Size. Price, each \$1.60 61 E 6470—Large Size. Price, each \$1.60



Tire Cable

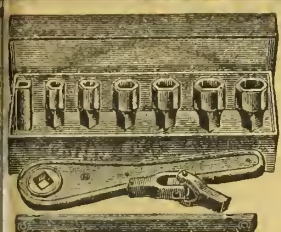
Made of a spiral hardened steel cable, covered with rubber to prevent rusting. Ends of cable are fastened into special attachments to prevent slipping through lock shackle. Cable is about 3 ft. long so it will hold two or three tires and can be drawn up so as to eliminate all rattling. Extra strong, high-grade lock furnished with two keys. Ship. wt., about 1 pound. 61 E 3366—Complete with lock. \$1.15



Tow Rope

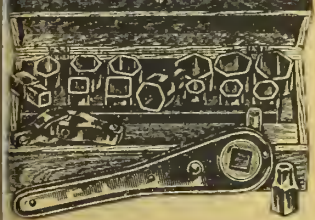
A strong, durable tow rope. Needed by every motorist who travels in the country. Rope is good quality. Length, about 25 feet. Ship. wt., 3 lbs. 61 E 6508—Each \$1.60

Prices Auto Supplies



Service Socket Wrench Set
\$3.20

Particularly desirable for Dodge, Ford or other light cars. For removing the cylinder head or bottom of the crank case this set will save all the trouble of constantly taking the wrench off the bolts to get a new bold. Best quality pressed steel. Finished in black. Outfit consists of the following: One 9-inch ratchet wrench; one square 1 1/2 inch extension socket; one universal joint for tight places. The opening sizes for the following 6 hexagon sockets: 3/32, 1/32, 2/32, 3/32, 4/32 and 5/32 inch. Shipping weight, 4 1/2 pounds.
61 E 9731—Price, complete set\$3.20



\$4.65

Challenge Wrench Set

Sockets of fine grade pressed steel. All parts carefully made to fit together accurately. Sockets are held in handle by spring tension, which prevents dropping out when in use. Set consists of 14 sockets, fitting most all sizes of bolts, nuts, sets, screws, etc. Universal joint and extension enable one to reach into cramped difficult places at any angle without trouble. These popular size hexagon and square sockets will save you lots of time when making adjustments, and as the set is in a strong wooden box, it can be carried in the car. Shipping weight, 5 1/2 pounds.
61 E 9730—Price, per set\$4.65



Utility "S" Wrench Set

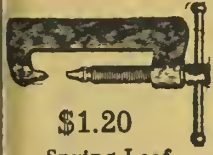
This set consists of five best grade drop-forged wrenches, lengths varying from 6 1/2 to 10 1/2 inches. Openings are for Standard Nuts and Cap Screws as follows: 1/16, 1/8, 3/16, 1/2, 5/8, 3/4, 1 1/4, 1 1/2 and 1 inch. The ends are semi-finished and each opening is accurately ground to size. With this set you can make adjustments on practically every nut and bolt on your car. There are numerous places around the motor and car that cannot be reached very easily with a straight wrench and in just such cases you will find one of these "S" Wrenches almost indispensable. Shipping weight about 3 pounds.
61 E 9750—Price, per set\$2.15



59c Flat Wrenches

Always Come in Handy

Outfit contains 5 flat S wrenches. Made of good quality heavy bar-tened steel. The openings will not spring like ordinary wrenches. Have the following size openings: 3/16, 1/8, 3/16, 1/2, 5/8, 3/4, 1 1/4 and 1 inch. Shipping weight, 2 pounds.
61 E 9757—Per set.....59c



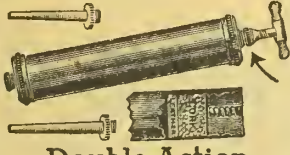
Spring Leaf Spreader
\$1.20

Opens the leaves so graphite and grease can be put in between the leaves. Fits all standard axle springs. Drop-forged, polished with gun metal finish. Shipping weight, 1 1/4 pounds.
61 E 9820—Price, each.....\$1.20



Creep-in Oil for Springs
27c 1/2-Pint

This is a special oil which will creep in between spring leaves. Used by painting on the edge of the spring with an ordinary brush. Makes the car ride easier. Shipping weight, 1 pound and 1 1/4 pounds.
61 E 6381—1/2-pint size cans, .27c
61 E 6382—1-pint size cans, Each .37c



Double Action Grease Gun

A locking thread nut gives two actions—that of the crowdown type gun for heavy oils and greases—and the push and pull plunger type for light oils. Substantial, heavy gauge tubing. Length of barrel, about 8 1/2 inches; diameter, about 1 1/2 inches. Two nozzles—one for heavy oils and greases, the other for light oils. The plunger is of leather and cork design. Shipping weight, 2 pounds.
61 E 9801—Price, each.....\$1.20



Oil Tempered—Heat Treated

| Item Number | Car and Model | Style and Location | Size Inches | Ship. wt. lbs. | Price Each |
|-------------|---|--------------------|----------------|----------------|------------|
| E6000 | Briscow, 4-24, 1917-18-19... | D-Front | 31 x 1 1/2 | 26 | \$4.25 |
| E6001 | Briscow, 4-24, 1917-18-19... | D-Rear | 34 x 1 1/2 | 38 | \$5.90 |
| E6047 | Bulck, D-45, D-47, E-45, 1916-17-18... | Cantilever Rear | 46 x 2 1/2 | 55 | 9.75 |
| E5900 | Bulck, E, H and K, 44-45-46-47, 1918-19-20... | A-Front | 36 1/2 x 2 | 20 | 5.10 |
| E5906 | Bulck, E, H and K, 40-50, 1918-19-20... | A-Front | 36 x 2 | 20 | 5.95 |
| E6089 | Chandler, 1917-18-19-20... | A-Front | 40 1/2 x 2 | 37 | 5.85 |
| E6090 | Chandler, 1917-18-19-20... | A-Rear | 57 x 2 | 49 | 8.45 |
| E6096 | Chevrolet, 490-1917-18-19... | 1/2 Elliptic Front | 21 1/2 x 1 1/2 | 15 | 3.45 |
| E6097 | Chevrolet, 490-1916-17-18-19 Touring | Cantilever Rear | 30 1/2 x 2 | 28 | 4.90 |
| E5914 | Chevrolet, 490-1916-17-18-19 Roadster | Cantilever Rear | 30 1/2 x 2 | 27 | 4.40 |
| E5916 | Chevrolet, 490-1920-21... | Cantilever Rear | 31 x 2 | 30 | 4.40 |
| E6098 | Dodge, All Models... | A-Front | 43 x 1 1/2 | 20 | 3.20 |
| E6099 | Dodge, 1915 to 1920... | A-Rear | 48 x 1 1/2 | 30 | 4.65 |
| E6101 | Dort, 1916 to 1920... | A-Front | 138 x 2 | 23 | 4.40 |
| E5924 | Hupp, R-1918-19-20-21... | A-Front | 36 x 1 1/2 | 22 | 3.45 |
| E5926 | Hupp, R-1918-19-20-21... | A-Rear | 50 1/2 x 2 | 38 | 6.20 |

A. A. A. Quality Standard Guaranteed Springs

Every spring is fully guaranteed for a year against breaking or sagging and will match your other spring. A spring 36x1 1/2 means that the spring measures 36 inches between centers of eyes and that the width is 1 1/2 inches. Some springs have one more or one less leaf than original spring. Measurements shown are when on car. For more complete line of springs write for our free Auto Supply Book. Order by article number only. Springs marked with * are shipped from Stock at Chicago, all others from Factory in Southern Michigan.

| Article Number | Car and Model | Style and Location | Size Inches | Ship. wt. lbs. | Price Each |
|----------------|---|--------------------|----------------|----------------|------------|
| *461E6166 | Maxwell, 25-1914 to 1919... | A-Front | 32 x 1 1/2 | 18 | \$2.95 |
| *461E6167 | Maxwell, 25-1913-14-15-16... | A-Rear | 40 x 1 1/2 | 22 | 3.50 |
| *461E6168 | Maxwell, 25-1917... | A-Rear | 45 x 1 1/2 | 27 | 4.20 |
| 261E6294 | Maxwell, 25-4, 18-19-20-21... | A-Rear | 48 1/2 x 2 | 29 | 5.40 |
| 261E6298 | Maxwell, 25-1920-21... | A-Front | 33 x 2 | 20 | 3.25 |
| 261E6298 | Nash, 6-81, 1918-19-20... | A-Front | 39 1/2 x 2 | 36 | 7.20 |
| 261E6190 | Oakland, 32-1916... | A-Front | 31 1/2 x 1 1/2 | 20 | 3.65 |
| 261E6196 | Oakland, Model 34, 1917... | A-Front | 36 x 1 1/2 | 24 | 3.75 |
| 261E6295 | Oakland, 32-B, 1916-34-B, 1918-19... | A-Front | 35 1/2 x 1 1/2 | 23 | 3.65 |
| *461E6229 | Overland, 75, 75-B, 90CC, 901d, 1916-17... | A-Front | 36 x 1 1/2 | 26 | 3.45 |
| *461E6230 | Over 75-1916, 75B, 1916-17... | A-Rear | 44 x 2 | 35 | 5.95 |
| *461E6297 | Overland, 90-1917-18-19... | A-Front | 36 1/2 x 1 1/2 | 26 | 3.80 |
| *461E6252 | Saxon, 4 cyl., 1915 to 1919... | Cantilever Front | 22 x 1 1/2 | 13 | 2.05 |
| *461E6253 | Saxon, 4 cyl., 1915 to 1919... | Cantilever Rear | 22 x 1 1/2 | 13 | 2.05 |
| 261E6301 | Studebaker, 4 cyl., 1916-17-18... | A-Front | 38 1/2 x 2 | 36 | 4.45 |
| *461E6303 | Studebaker, 6 cyl., 1916-17-18, E.H. DG 1919... | A-Front | 38 1/2 x 2 | 26 | 4.45 |

Handy Socket Wrench Set

Needed by All Motorists

Owing to the high cost of making repairs and adjustments (often \$1.25 an hour), many owners are now doing this work themselves. Loose nuts and bolts cause excessive wear which means new parts. Here's an outfit that will cut down high costs for you. There are sockets in this outfit that will fit practically every bolt and nut on all autos and with the use of our new, improved flat ratchet handle you can tighten loose parts and make adjustments in a great deal less time than with ordinary wrenches. Outfit consists of socket wrench; an assortment of 30 case-hardened, cold-drawn pressed-steel sockets ranging in size from 5/16 to 1 1/2 inches; one combination double-end screwdriver bit (large and small ends); a universal joint (permitting the use of



Strong Steel Box

Do Your Own Repairing

the wrench at an angle up to 90 degrees); one long and one short extension bar, the long bar permitting wrench to reach into engine or crank cases, also a long socket for removing spark plug. Shipping weight, 10 pounds.
61 E 9737—Complete set.....\$7.95

Pressed Steel Hexagon and Square Sockets



We furnish a complete line of hexagon and square sockets in the following sizes. Fit all standard size socket wrench handles. Shipping weight, 3 to 6 ounces. Price, each, any size 15c

| Hexagon Sockets | | Square Sockets | |
|-----------------|-----------|----------------|-----------|
| Art. No. | Size, In. | Art. No. | Size, In. |
| 61 E 9764 | 5/16 | 61 E 9778 | 3/4 |
| 61 E 9765 | 1/2 | 61 E 9779 | 7/8 |
| 61 E 9766 | 3/4 | 61 E 9780 | 1 1/8 |
| 61 E 9767 | 1 1/2 | 61 E 9781 | 1 1/4 |
| 61 E 9768 | 1 1/2 | 61 E 9782 | 1 1/2 |
| 61 E 9769 | 1 1/2 | 61 E 9783 | 1 3/4 |
| 61 E 9770 | 1 1/2 | 61 E 9784 | 1 3/4 |
| 61 E 9771 | 1 1/2 | 61 E 9785 | 1 3/4 |
| 61 E 9772 | 1 1/2 | 61 E 9786 | 1 3/4 |
| 61 E 9773 | 1 1/2 | 61 E 9787 | 1 3/4 |
| 61 E 9774 | 1 1/2 | 61 E 9788 | 1 3/4 |
| 61 E 9775 | 1 1/2 | 61 E 9789 | 1 3/4 |
| 61 E 9776 | 1 1/2 | 61 E 9790 | 1 3/4 |
| 61 E 9777 | 1 1/2 | | |

Master Socket Wrench Set

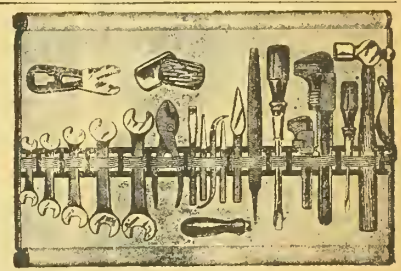
This is the set for the boss mechanic or critical auto owner who insists on having the best—who demands that every nut or bolt must be properly tightened. Hard to reach connecting rod nuts, brake band and clutch adjustment are easily handled. Set contains 38 sockets; one flat ratchet handle; one 7-inch drop-forged pipe wrench; one pair pliers; five flat wrenches (10 openings); one cotter pin extractor; one folding screw driver; one universal joint; one long extension rod; one short extension rod; one offset socket wrench handle; one spark plug socket, 2 3/32 x 1 inches long. Shipping weight, 15 pounds.
61 E 9733—Price, complete set.....\$11.95



Supplies for Fords Pages 782-788

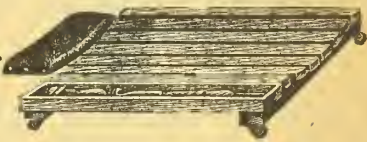
Tool Kit

A handy, every-day assortment of high-grade selected tools that are used almost constantly around an auto. A good tool to use when needed is a time saver as well as a money saver. An outfit like this will certainly save its cost many times over. Outfit consists of five double-end wrenches, ten popular size openings, single jaw alligator style wrench, nine-inch monkey wrench, one round 3-inch and one square shank 5-inch screwdriver, bicycle wrench, seven-inch flat file, pair of pliers, one solid and one center punch, one half-inch cold chisel, one cape chisel, machinist's hammer, cotter pin extractor, box assorted cotter pins, all put up in canvas roll. Shipping weight, about 8 pounds.
61 E 9735—Price, complete outfit.....\$5.60



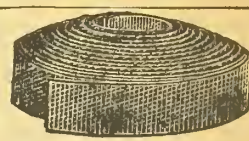
\$5.60

Auto Creeper \$1.45



Strongly made with hardwood bed cross pieces. Fitted with cushion bead rest and easy rolling casters which enable you to shift from one position to another making work under the car easier, quicker and cleaner. Furnished with or without tool rack. The one shown above has tool rack and is 36 inches long and 21 inches wide. Without tray, width is about 17 inches. Shipping weights, 9 1/2 pounds, without tray, 12 pounds with tray.
161 E 9321—Price, each, with one tray.....\$2.10
161 E 9309—Price, each, without tray.....1.45

Challenge Brake Lining



Challenge lining is made of a finest staple, fibrous asbestos yarn, closely interwoven with brass wire and cotton. It will not char or burn from friction heat nor does it soften or become hard. This lining is heat-proof, dust-proof, oil-proof and waterproof. This is exactly the same brake lining as used by many prominent manufacturers on new cars. Average weight, 61 E 9409 32c per foot, 61 E 9410 35c per foot, 61 E 9411 39c per foot, 61 E 9412 42c per foot, 61 E 9413 60c per foot.

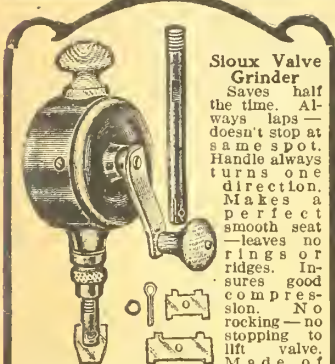
Brass Split Rivets

These rivets are especially for brake lining. This split makes them exceptionally easy to clinch. Sizes for Fords, 5/16 inch, or 3/4 inch, 100 in box. Shipping weight, about 6 ounces.

| Article Number | Price per Box | Length Inches |
|----------------|---------------|---------------|
| 61 E 9416 | 24c | 5/16 |
| 61 E 9417 | 30c | 3/8 |
| 61 E 9418 | 32c | 1/2 |
| 61 E 9420 | 45c | 3/4 |



Here's Help to Make Piston Rings, Valves, Valve Grinding Outfit.



Sloux Valve Grinder
Saves half the time. Always laps—doesn't stop at same spot. Handle always turns one direction. Makes a perfect smooth seat—leaves no rings or ridges. Insures good compression. No rocking—no stopping to lift valve.

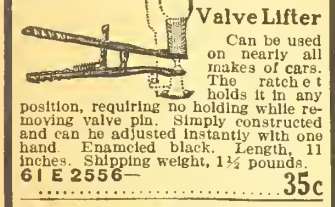
Made of malleable iron and steel. Three fittings with five ends for all valves. Shipping weight, 4½ pounds. Outfit complete.
61 E 9333—\$2.65



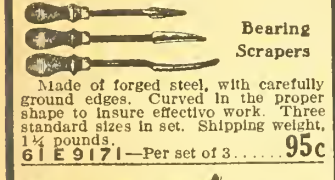
E. Z. Valve Grinder
Grinds all valves quickly. Simply hold top part of grinder with left hand, and work grinder handle up and down. Length, 15 inches. Shipping weight, 2½ pounds.
61 E 9318—\$1.48



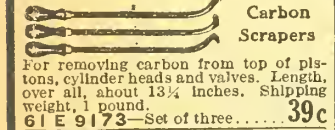
Valve Grinding Compound
Fast cutting. Put up in a double end box, one end containing a fine and the other a coarse grade. Contents, 4 ounces. Shipping weight, 7 ounces.
61 E 9308—Per Box—24c



Valve Lifter
Can be used on nearly all makes of cars. The ratchet it holds it in any position, requiring no holding while removing valve plug. Simply connected and can be adjusted instantly with one hand. Enamelled black. Length, 11 inches. Shipping weight, 1½ pounds.
61 E 2556—35c



Bearing Scrapers
Made of forged steel, with carefully ground edges. Curved in the proper shape to insure effective work. Three standard sizes in set. Shipping weight, 1½ pounds.
61 E 9171—Per set of 3—95c



Carbon Scrapers
For removing carbon from top of pistons, cylinder heads and valves. Length, over all, about 13½ inches. Shipping weight, 1 pound.
61 E 9173—Set of three—39c



Never-Knock Carbon-Remover
Just put a few drops in the cylinders, run your motor and the carbon will be dissolved so it will be blown out through the exhaust. Shipping weights about 8 and 15 ounces.
Small size, 1 lb. 39c
Large size, 1½ lb. 53c



Fan Belts

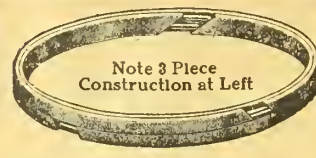
For Popular Cars

Made of high test exceptionally strong treated cotton fabric with a special preparation making it impervious to oil and water. Folded and stitched. Shipping weight, 4 ounces.

- | Article Number | Size | Price |
|----------------|--|-------|
| 61 E 9836 | Briscoe, 1917 to 1920 | 35c |
| 61 E 9818 | Buick, D-45, 1916-17 | 33c |
| 61 E 9837 | Buick, E-45-46-47-49-50, H-44-45-46-47-49-50, 1918 to 1920 | 35c |
| 61 E 9823 | Chandler, 1916 to 1920 | 35c |
| 61 E 9829 | Chevrolet, 490, 1915-16-17 | 33c |
| 61 E 9822 | Dodge, 1915-16 | 35c |
| 61 E 9823 | Dodge, 1917 to 1920 | 35c |
| 61 E 9838 | Essex, 1919-20 | 49c |
| 61 E 9854 | Maxwell, 1915 | 49c |
| 61 E 9855 | Maxwell, 1916-17 | 57c |
| 61 E 9856 | Maxwell, 1918-19, early, 20, 60c | |
| 61 E 9840 | Maxwell, late '20, Serial 271,529 and up | 65c |
| 61 E 9841 | Overland, 75, 90, 90 C. C., 1916 to 1919 | 35c |
| 61 E 9842 | Overland, 4, 1920 | 40c |
| 61 E 9843 | Saxon, 6 cyl., 1916 to 1920 | 40c |
| 61 E 9844 | Studebaker, 6 cyl., 1916 to 1920 | 35c |
| 61 E 9845 | Reo, 4 cyl., 1915 to 1919 | 45c |

V Type Fan Belts

- | Article Number | Size | Price |
|----------------|--|--------|
| 61 E 9900 | Chevrolet, 490, 1918 to 1920 | 63c |
| 61 E 9898 | Chevrolet, F. A. F. B. F. D., 1918 to 1920 | \$.89 |
| 61 E 9846 | Hupmobile R., 1918 to 1920 | 1.60 |
| 61 E 9847 | Nash, 1917 to 1920 | 1.60 |
| 61 E 9849 | Oakland 1916 to 1920 | .63 |



Note 3 Piece Construction at Left

Nu Power 3 Piece Piston Rings

Give More Power—Save Gasoline and Oil

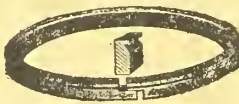
WE have made tests with several leading piston rings and have found the three-piece ring shown above to be exceptionally reliable under the most trying conditions. This is an excellently constructed piston ring. Motors which failed to pick up quickly—that stalled on real hard pulls—that used far too much gasoline and oil for their size, have been brought back into condition when fitted with Nu Power Piston Rings. Nu Power Piston Rings eliminate a whole lot of repair work, due to their three-piece construction. They fit tightly all the way round, perfectly sealing the compression, preventing leakage. Besides giving more power—more speed—greater flexibility—quicker pick-up—Nu Power Piston Rings greatly aid in doing away with oil sooted plugs and excessive carbon deposits due to oil leakage. Furnished in sizes listed only. Average shipping weight, 6 ounces.

Price, each..... 75c

When ordering Piston Rings, give name, year and model of car, and state whether pistons are oversize or regular.

Nu Power Piston Rings—All Sizes 75c Each

| Article Number | Size Inches | Article Number | Size Inches | Article Number | Size Inches |
|----------------|---------------|----------------|---------------|----------------|---------------|
| 61 E 9466 | 2 5/8 x 3 1/8 | 61 E 9466 | 3 3/8 x 3 1/8 | 61 E 9473 | 4 1/4 x 3 1/8 |
| 61 E 9467 | 2 5/8 x 3 1/8 | 61 E 9467 | 3 3/8 x 3 1/8 | 61 E 9476 | 3 3/8 x 3 1/8 |
| 61 E 9468 | 2 5/8 x 3 1/8 | 61 E 9468 | 3 3/8 x 3 1/8 | 61 E 9477 | 3 3/8 x 3 1/8 |
| 61 E 9469 | 2 5/8 x 3 1/8 | 61 E 9469 | 3 3/8 x 3 1/8 | 61 E 9478 | 4 x 3 1/8 |
| 61 E 9470 | 3 x 3 1/8 | 61 E 9470 | 3 3/8 x 3 1/8 | 61 E 9480 | 4 1/4 x 3 1/8 |
| 61 E 9471 | 3 1/4 x 3 1/8 | 61 E 9471 | 3 3/8 x 3 1/8 | 61 E 9481 | 4 1/2 x 3 1/8 |
| 61 E 9472 | 3 1/2 x 3 1/8 | 61 E 9472 | 3 3/8 x 3 1/8 | 61 E 9485 | 4 x 3 1/8 |
| | | | | 61 E 9490 | 4 1/2 x 3 1/8 |



Oil Groove

Quick Seating Piston Rings

This type of ring is a favorite with several hundred thousand motorists. A groove near the top of each ring holds a quantity of oil, thus forming a film that prevents excessive oil working up past the pistons. The groove is cut on an angle so that on the down stroke it pushes surplus oil back toward the crank case. The film of oil held in the groove seals the compression chamber so that there is a big saving in oil and gasoline bills—so that your motor runs better and so that you will not have spark plug trouble due to the pistons "throwing oil." These rings are the quick seating style that will fit perfectly when driven about 100 miles, which is a very valuable feature. Shipping weights each, about 5 ounces.

Oil Groove Piston Rings—All Sizes. Each..... 29c

| Article Number | Size Inches | Article Number | Size Inches | Article Number | Size Inches |
|----------------|---------------|----------------|---------------|----------------|---------------|
| 61 E 9872 | 2 1/2 x 3 1/8 | 61 E 9881 | 3 3/8 x 3 1/8 | 61 E 9890 | 4 1/2 x 3 1/8 |
| 61 E 9873 | 2 3/4 x 3 1/8 | 61 E 9882 | 3 3/8 x 3 1/8 | 61 E 9891 | 3 3/8 x 3 1/8 |
| 61 E 9874 | 2 5/8 x 3 1/8 | 61 E 9883 | 3 3/8 x 3 1/8 | 61 E 9892 | 3 3/8 x 3 1/8 |
| 61 E 9875 | 2 5/8 x 3 1/8 | 61 E 9884 | 3 3/8 x 3 1/8 | 61 E 9893 | 4 x 3 1/8 |
| 61 E 9876 | 3 x 3 1/8 | 61 E 9885 | 3 3/8 x 3 1/8 | 61 E 9894 | 4 1/4 x 3 1/8 |
| 61 E 9877 | 3 1/4 x 3 1/8 | 61 E 9886 | 3 3/8 x 3 1/8 | 61 E 9895 | 4 1/2 x 3 1/8 |
| 61 E 9878 | 3 1/2 x 3 1/8 | 61 E 9887 | 3 3/8 x 3 1/8 | 61 E 9896 | 4 3/4 x 3 1/8 |
| 61 E 9879 | 3 3/4 x 3 1/8 | 61 E 9888 | 3 3/8 x 3 1/8 | 61 E 9898 | 4 x 3 1/8 |
| 61 E 9880 | 3 5/8 x 3 1/8 | 61 E 9889 | 4 x 3 1/8 | 61 E 9899 | 4 1/2 x 3 1/8 |

Step Cut Piston Rings

14c

Made of an excellent quality, very tough and springy metal. Can be used in replacing any style rings. Furnished in the following sizes only. Shipping weight, each, 5 ounces.

Price, each for any of sizes below..... 14c

| Article Number | Size Inches | Article Number | Size Inches |
|----------------|---------------|----------------|---------------|
| 61 E 9118 | 2 5/8 x 3 1/8 | 61 E 9130 | 3 3/8 x 3 1/8 |
| 61 E 9119 | 2 5/8 x 3 1/8 | 61 E 9131 | 3 3/8 x 3 1/8 |
| 61 E 9120 | 2 5/8 x 3 1/8 | 61 E 9132 | 3 3/8 x 3 1/8 |
| 61 E 9121 | 2 5/8 x 3 1/8 | 61 E 9133 | 3 3/8 x 3 1/8 |
| 61 E 9122 | 2 5/8 x 3 1/8 | 61 E 9134 | 3 3/8 x 3 1/8 |
| 61 E 9123 | 2 5/8 x 3 1/8 | 61 E 9135 | 3 3/8 x 3 1/8 |
| 61 E 9124 | 3 x 3 1/8 | 61 E 9136 | 3 3/8 x 3 1/8 |
| 61 E 9125 | 3 x 3 1/8 | 61 E 9137 | 3 3/8 x 3 1/8 |
| 61 E 9126 | 3 1/4 x 3 1/8 | 61 E 9138 | 3 3/8 x 3 1/8 |
| 61 E 9127 | 3 1/2 x 3 1/8 | 61 E 9139 | 3 3/8 x 3 1/8 |
| 61 E 9128 | 3 3/4 x 3 1/8 | 61 E 9140 | 4 x 3 1/8 |

Guaranteed Flexedge



VALVES

You Never Need to Grind Them

Thousands of car owners are getting more power from their cars at less expense for gasoline without valve grinding troubles by using these Flexedge Laminated Valves that are built up by taking many thin discs of highly tempered steel and pressing them tightly together under tremendous pressure, onto a special steel stem. These valves will not pit or leak as the edges flex slightly when the explosion occurs in the cylinder. This flexing action cleans off carbon particles preventing their sticking on the valve seat and causing loss of power by leakage. Flexedge Valves are self-cleaning so it is not necessary to keep grinding them as must be done with regular valves if you want the engine to run at its best. After putting in Flexedge Valves your motor will run slower without jumping or jerking as happens with ordinary leaky valves. They seal the compression chamber, stopping waste of gasoline and power. Flexedge Valves will quickly save their price by doing away with valve grinding costs.

Flexedge valves are made exactly the right size for the cars and motors shown. All of the cars shown here use the same size exhaust and intake valves except the Buick and Essex. When ordering please mention name of car, model and year as well as the article number.

| Article Number | Name of Car or Motor | Year and Model | Valves | Price Each |
|----------------|----------------------|--|----------------|------------|
| 61 E 6965 | Buick | 1916-17 D-44-45-46-47 | Intke. & Exht. | \$1.35 |
| 61 E 6967 | Buick | 1917-D33-35; 1918 E34-35-37 | Intke. & Exht. | 1.12 |
| 61 E 6969 | Buick | 1918E44-45-46-47-49 50, 1919 H44-45-46 47-49-50, 1920 K44 45-46-47-49-50 | Intake only | 1.80 |
| 61 E 6971 | Buick | Same models as 61E6969 | Exhaust only | 1.57 |
| 61 E 6966 | Cadillac | 6 cyl. Models 55-57-59 | Intke. & Exht. | 2.25 |
| 61 E 6973 | Chevrolet | 490 All Years | Intke. & Exht. | .95 |
| 61 E 6975 | Dodge | All Models | Intke. & Exht. | 1.57 |
| 61 E 6977 | Lycoming | K-4 cyl. | Intke. & Exht. | 1.35 |
| 61 E 6963 | Franklin | Model B | Intke. & Exht. | 1.35 |
| 61 E 6979 | Elgin | Six, All Models | Intke. & Exht. | 1.12 |
| 61 E 2798 | Ford | All Models | Intke. & Exht. | .67 |
| 61 E 6970 | Essex | All Models | Intake only | 1.80 |
| 61 E 6972 | Essex | All Models | Exhaust only | 1.80 |
| 61 E 6983 | Hudson | Super-Six | Intke. & Exht. | 1.80 |
| 61 E 6974 | Hupmobile | Model R | Intke. & Exht. | 1.80 |
| 61 E 6976 | Mitchell | 1916-17-18-19-20 | Intke. & Exht. | 1.48 |
| 61 E 6978 | Nash | Six, 1918-19-20 | Intke. & Exht. | 1.35 |
| 61 E 6985 | Oakland | Six, All Models | Intke. & Exht. | 1.12 |
| 61 E 6985 | Oldsmobile | 37 | Intke. & Exht. | 1.12 |
| 61 E 6987 | Overland | New 4 | Intke. & Exht. | 1.12 |
| 61 E 6980 | Overland | Country Club | Intke. & Exht. | 1.35 |
| 61 E 6989 | Studebaker | Big Six 1917 to 20 | Intke. & Exht. | 1.57 |
| 61 E 6991 | Studebaker | Four 1916-17-18 | Intke. & Exht. | 1.57 |
| 61 E 6984 | Scrimps-Booth | All Models | Intke. & Exht. | 1.13 |
| 61 E 6993 | Continental | W-7-8-9, 6 cyl. | Intke. & Exht. | 1.12 |
| 61 E 6995 | Continental | N-3, 4-6-7-8-9-10-11 6 cyl. | Intke. & Exht. | 1.35 |
| 61 E 6997 | Continental | 7-R-1-200 6 cyl. | Intke. & Exht. | 1.35 |

Note Intke.=Intake Exht.=Exhaust

Radiator Hose



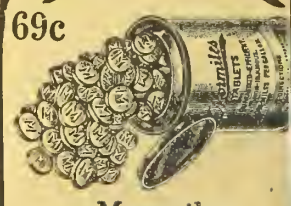
Made of good rubber and fabric. Expressly for radiator purposes. Will furnish any number of feet desired. Average ship. weight, foot, 1 pound.

| Number | Inside Size | Price Foot |
|-----------|-------------|------------|
| 61 E 9921 | 1 1/4 inch | 23c |
| 61 E 9922 | 1 1/2 inch | 27c |
| 61 E 9923 | 1 3/4 inch | 31c |
| 61 E 9924 | 2 inch | 35c |
| 61 E 9925 | 2 1/4 inch | 45c |
| 61 E 9926 | 2 1/2 inch | 50c |

Adjustable Hose Clamp

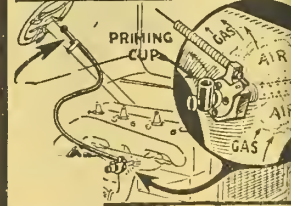
Here's a brand new patented hose clamp made of galvanized steel that fits different size hose and also takes care of variations in the thickness. Just clamp slotted part over catch of the nearest size bolt.

| Article Number | For Hose with Inside Diameter | Each |
|----------------|-------------------------------|------|
| 61 E 9198 | 1/2 to 1 1/4 in. | 6c |
| 61 E 9199 | 1 1/4 to 2 1/4 in. | 7c |
| 61 E 9200 | 2 1/4 to 3 1/4 in. | 8c |



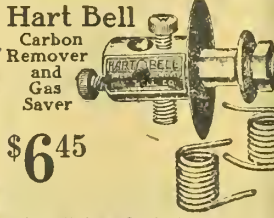
Mormiles Gasoline Tablets

They give you more miles per gallon of gasoline than ever before and reduce carbon. Gas treated with Mormiles Tablets will show a wonderful improvement in your motor both in power and speed. Mormiles keep your spark plugs clean, by utilizing all available gas. Positively harmless. Contain no acid or chemical to injure your motor in the slightest. They do not interfere with lubrication. B contains 100 tablets which will treat 100 gallons. Shipping weight, about 5 ounces.
61 E 9185—Per box of 100..... 69c



Hand Controlled Gas Valve with Priming Cup

Saves from 10 to 20 per cent of your gasoline, and increases the power. Illustrated. A special flexible shaft 4 feet long, runs from the mixer control lever, which is attached to steering post. Sprays air into the manifold which breaks up the gasoline and gives your motor a better mixture. Gives a quicker pick-up and a faster get-away. Priming cup feature is big help in cold weather and it can also be used for admitting carbon removers to cylinders. 3/4-inch standard pipe thread. Nickel plated. Shipping weight, 8 ounces.
61 E 2150..... \$1.80



Hart Bell Carbon Remover and Gas Saver

Installed on the dash and arranged so that water is drawn into the intake manifold when the control is operated. This water is admitted in the right proportion so that when it is drawn into the cylinder with the fuel it is converted into steam by the heat of the explosion and acts on the carbon which the motor is running. The carbon loosened and blown out through the exhaust. Dash adjustment. In cold weather the Hart Bell can be used as a primer. It also acts as a gas saver opening air control on dash. Outfit includes all fittings. Device can be attached in a short time. Complete instructions. Shipping weight, 1½ pounds.
61 E 9187..... \$6.45



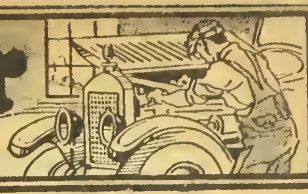

Worko Carbon Remover

Insert two Worko Tablets into each cylinder, replace the plugs, start the motor, run it slowly for a moment get in your car and ride. No acid or chemical to pit or injure your engine in the slightest. Works on your cylinders clean. Shipping weight, 8 ounces and 1 pound.
61 E 9176—Small, 75c
61 E 9177—Large, size, 72 Tablets, \$1.50

Gasoline Tester

This instrument will clearly indicate the specific gravity and grade of the gasoline you get. Gasoline should not test much below 60 degrees or it works a hardship on your starting motor and battery. Poor gasoline is often the cause of hard starting, especially in cold weather. Each instrument is carefully packed. Shipping weight, 7 ounces.
61 E 9269—30c

Every Auto Runs Better on Spark Plugs and Spark Intensifiers

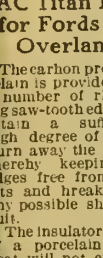



AC Titan Spark Plug

Has a smaller hexagon shoulder on the body, so it fits deeper into the spark plug hole. Ship. wt., 5 oz.

61 E 9032— $\frac{1}{2}$ -inch, long. Regular equipment on Oakland 34-B, Oldsmobile, 6 cyl. 1919, and all Nash up to 1919. **72c**

61 E 9034— $\frac{3}{4}$ -inch, extra long. Regular equipment on all Nash 1919-20-21. **72c**




Carbon Proof AC Titan Plug for Fords and Overlands

The carbon proof porcelain is provided with a number of ribs having saw-tooth edges that retain a sufficiently high degree of heat to burn away the carbon, thereby keeping the edges free from deposits and breaking up any possible short circuit.

The insulator is made of a porcelain which heat will not crack. Also for others using this size. Ship. wt., 5 oz.


61 E 9080— $\frac{1}{2}$ -inch size. **72c**



AC Cico Spark Plugs 54c

A spark plug of famous AC construction. It is well made with a strong porcelain which will not crack under ordinary use. All parts are easily reached for cleaning. Selected firing points. Ship. wt., each, 4 ounces.

61 E 9005— $\frac{1}{2}$ -inch. **54c**
61 E 9006— $\frac{3}{4}$ -inch. **54c**
61 E 9008—For Ford. **54c**
61 E 9009—For Dodge. **54c**
61 E 9010—For Saxon. **54c**




AC Two-Piece Spark Plug

Carbon proof type with saw-tooth edges on porcelain that burn away carbon, thus preventing short circuits. Can be taken apart without possibility of breaking porcelain. Shipping weight, 5 ounces.

61 E 9686— $\frac{1}{2}$ -inch size for Fords and other motors using this size. **89c**

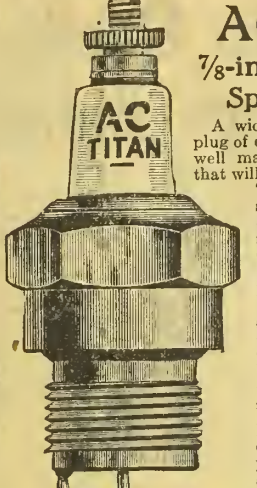
61 E 9687— $\frac{3}{4}$ -inch size. **89c**



Bethlehem Special for Buicks and Chevrolets

Bethlehem number 29, a special design that fits all models of Buicks. Supplied with thumb nut. Ship. wt., 5 ounces.

61 E 9088— $\frac{3}{4}$ -in. extension. **79c**




AC Titan $\frac{7}{8}$ -inch Regular Spark Plugs

A widely known high grade plug of exceptional merit. It is well made of tough porcelain that will withstand intense heat.

The plug is so constructed, that it practically cannot become short circuited on account of soot collecting. $\frac{3}{4}$ -in. size that fits Cadillac, Case, Cleveland, Dort, Elcar, Elgin, Grant, Hudson, Hupmobile, Jackson, Jeffery, Jordan, Lexington, Moon, Parkard, Paige-Detroit, Pierce-Arrow, Roamer, Stutz, Velie, Westcott, Willys-Knight, and many others using this size plug. Ship. wt., 5 oz.

61 E 9004—**72c**




Splitdorf Spark Plug

Guaranteed 3 Years

Will give good service when used with either Batteries or Magneto. The core is of mica and is protected by a porcelain sleeve. The plug gives a very hot spark, positively will not leak compression, and is guaranteed not to break. Shipping wt., about 6 ounces.

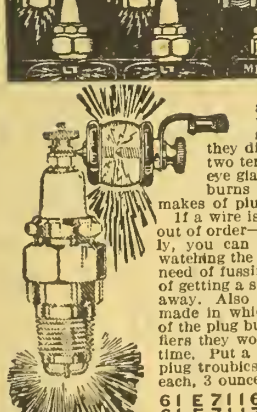
61 E 9023— $\frac{1}{2}$ -inch. Regular Price, each. **76c**
61 E 9024— $\frac{3}{4}$ -inch A. L. A. M. **76c**
61 E 9079—Special for Ford. **76c**



Extension Spark Plug for Overland, Buick, Chevrolet 490 and Reo

Overland Model especially for use on cars made previous to the late 1915 model. Buick plug fits all models 1915 and older or can be used with any car having clearance for an extension plug. Have a $\frac{1}{4}$ -inch extension below the thread. High-grade porcelain and workmanship throughout. Shipping weight, 5 ounces.

61 E 9054—Overland and all Reos. $\frac{1}{2}$ inch size. **40c**
61 E 9055—Buick Special and Chevrolet 490, $\frac{3}{4}$ -inch. **40c**




Hot Spark Intensifiers

Make Old Spark Plugs Fire Like New

This wonderful little device with its adjustable gap actually makes spark plugs which are missing on account of soot or similar troubles fire every time just like they did when new. The extra gap between the two terminal points encased in the heavy bulb's eye glass cylinder gives a spark so strong that it burns right through the carbon. Works on all makes of plugs.

If a wire is short circuited or broken—the batteries out of order—the timer or magneto working improperly, you can tell instantly by raising the hood and watching the sparks in the glass cylinders. There's no need of fussing with screw drivers or pliers—no need of getting a shock. At night the spark is visible 19 feet away. Also aids in timing motor. Tests have been made in which no spark would appear at the points of the plug but when fitted with the Hot Spark Intensifiers they would fire regularly, never missing a single time. Put a set on your plugs and end practically all plug troubles. Plug not included. Shipping weight, each, 3 ounces.

61 E 7116—Each. **\$.28**
61 E 7117—Set of 4. **1.10**
61 E 7118—Set of 6. **1.60**



Bethlehem Special for Fords

A plug designed especially to overcome oil and heat conditions common to Ford motors. The porcelain is extra heavy and the electrodes are of special mixture steel alloy, that has proven best for giving a good strong spark. Can be used on any motor requiring a $\frac{1}{2}$ -inch plug of special mixture steel alloy. Ship. wt., about 5 oz.

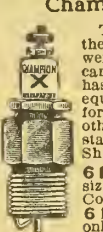
61 E 9086—**49c**



Riverside Giant Size Spark Plugs

A great, big, powerful plug that will give years of service. The heavy body is turned from solid bar hexagon steel, scientifically treated and copper plated. The stone-colored porcelain is especially selected. Ele trode and sparking points made of high resistance, special treated alloy. A heavy shoulder or ledge on the porcelain sits upon a copper gasket in the shell which in turn is held down and made gas tight by an adjustable locking nut. Terminal takes either the regular open end or slip-on connection. Each plug is put up in a neat lithographed tin box, for easy carrying without fear of injury in the tool box. Shipping weight, 8 ounces.

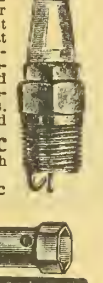
61 E 9015— $\frac{1}{2}$ -inch size. **65c**
61 E 9016— $\frac{3}{4}$ inch. A. L. A. M. size. **65c**



Champion X Plug

This plug is the same as the Champion X's that were in your Ford when it came from the factory. It has been used as standard equipment on all Fords for years. Also suitable for other cars using a $\frac{1}{2}$ -in. standard pipe thread plug. Ship. wt., 4 oz.


61 E 2114— $\frac{1}{2}$ -inch size. **49c**
61 E 2115—Porcelains only. **29c**



Speedway Long-Distance Spark Plugs

This low price has been made possible due to our buying large quantities at one time. It gives a hot, fat spark so necessary for complete combustion. Porcelains especially annealed to prevent undue brittleness. Ship. wt., 4 ounces.


61 E 9070—Standard $\frac{1}{2}$ -inch. **35c**
61 E 9071— $\frac{3}{4}$ inch A. L. A. M. **35c**



Triumph Hot Firing Tubes

This marvelous invention, which is attached to the bottom of your spark plug, makes every spark a flaming torch, changing tiny sparks to a spreading, white-hot flame. Gives more complete combustion at every explosion, which aids in furnishing more vital power at every stroke of the piston. Quicker pick-up. The hot point shields plugs from oil—the result is clean spark plugs. Order hot firing tubes same as your spark plugs. Be sure to give name of car and size of your spark plug when ordering. Shipping weight, each, 4 oz.


61 E 9059— $\frac{1}{2}$ -inch size. **70c**
61 E 9060— $\frac{3}{4}$ -inch size. **70c**
61 E 9083— $\frac{3}{4}$ -inch Extension fits all Buicks up to 1919. **70c**
61 E 9082—Special for Fords. **70c**



Bethlehem $\frac{7}{8}$ -inch Spark Plug

This is a standard design $\frac{3}{4}$ -inch plug with a $\frac{1}{8}$ -inch hexagon shoulder that is used as regular factory equipment on Studebaker and Marmon cars. A plug well suited for all motors using a $\frac{3}{4}$ -inch plug of this type. Bethlehem's No. 07. Ship. wt., about 5 ounces.

61 E 9087— $\frac{3}{4}$ -inch. **79c**




AC Titan Extension Spark Plug

The motors on Buicks, Chevrolets and Reos are so designed that they require this style extension type plug. Shipping weight 6 ounces.

61 E 9025— $\frac{3}{4}$ -inch, extension type. Regular equipment on Buick, Chevrolet 490, 1919-20-21. **72c**

61 E 9036— $\frac{1}{2}$ inch, extension type, for all Reo cars and trucks, 1919-20-21. **72c**



Special AC Titan for Dodge

This plug has long body, specially shaped for Dodge motors. Regular factory equipment. Ship. weight, 5 ounces.


61 E 9028— $\frac{3}{4}$ -inch size. **72c**



AC Cico Spark Plug 54c

This plug is constructed with a long shank. Ship. wt., each, 5 ozs.


61 E 9030— $\frac{1}{2}$ in. Extension. Regular equipment on Chevrolet 490, 1917-18; all Buick cars up to 1919. **54c**
61 E 9026— $\frac{3}{4}$ in. Extension. Regular equipment on all Reo cars and trucks up to 1919. For all Overlands up to 1914. **54c**



AC Titan Long Body Spark Plug

This plug is constructed with a very long body. It is particularly suited to the cars listed below, on which it is regular equipment: Chandler, Stevens-Duryea, White Trucks, Bessemer Trucks, Hahn Trucks, Moreland Trucks, Robinson Fire Trucks, Schwartz Trucks, Titan Trucks, Owens Light and Power Plant and Northlight Lighting Plants. Shipping weight, 6 ounces.

61 E 9688— $\frac{3}{4}$ -inch size. **72c**



Bethlehem Special Extension Type

Bethlehem number 019 with extra long firing chamber. Particularly suited for use in Nash, Oldsmobile, Winton and other motors using this style plug. Shipping weight, 5 ounces.

61 E 9091— $\frac{3}{4}$ in. long. **79c**

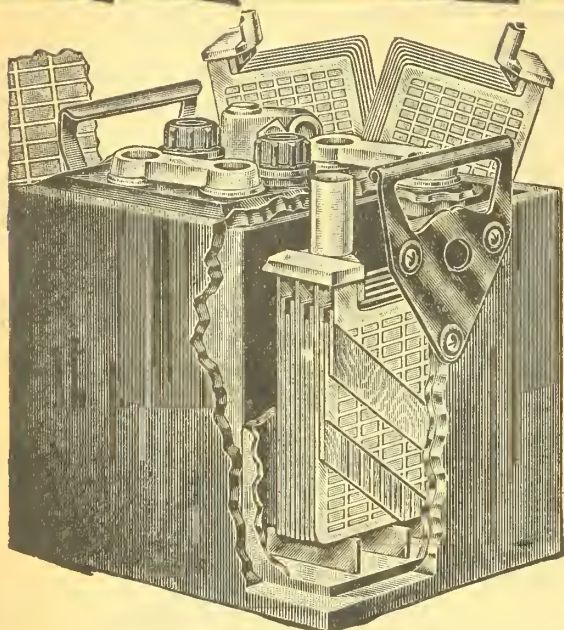


Bethlehem Special for Dodge

Bethlehem number 029. A special length plug of the right style for Dodge motors. Will also give excellent service in latest model Continental motors. Shipping weight, 5 ounces.

61 E 9092— $\frac{3}{4}$ in. Special. **79c**

Ward's De Luxe



Guaranteed First Quality Construction Storage Batteries

WHEN you buy a De Luxe battery you get an absolutely first quality battery that will give you excellent service at a price that is made possible only by the fact that we sell many thousands each year direct by mail from our big stores.

Why We Can Make Our Prices So Low
Our battery business has grown enormously and a great part of our increased sales has been due to those who bought De Luxe batteries telling their friends of the big saving they made. It would be impossible to sell De Luxe quality batteries profitably at the prices we show here if we had to add on the several in-between profits and expenses usually added to the manufacturing cost.

We Guarantee Every Battery Absolutely
We know batteries thoroughly and have given you in the De Luxe an exceedingly high quality, reliable battery that will please you so well that you will be all the more convinced of our ability to save you money on articles of superior construction.
Our business has been built up by saving people money. If you will compare our battery prices with those of any other battery fully covered as is ours, by a guarantee against defects you will see how startling is the difference in cost. For

It is Easy to Change a Battery
Each De Luxe Battery is specially designed to fit the space provided by the car manufacturer and the terminal posts are arranged so your wires can be easily connected. In most cases it is as easy to change a battery as it is to change a tire.

nearly 50 years we have absolutely made good with our customers and the faithful, early promises made on other merchandise holds good on De Luxe Batteries.

Note These Strong Points in De Luxe Construction

The big features of a battery are the plate separators, jars and terminals. De Luxe plates consist of scientifically correct compounds held securely by rectangular shaped grids which form a structure similar to the framework in a modern steel truss constructed building. This exposes the greatest amount of active materials to the solution which means longer life to the plate and greater discharge capacity for starting when motor is cold. The separators are specially selected, thoroughly treated and cured so to allow the current to flow freely, yet give complete insulation preventing short circuits.

The jars are made of the finest grade hard rubber and each one is electrically tested under high voltage, so there is no possibility of an imperfect jar that will leak current being used in De Luxe battery. A heavy hard rubber cover with a shoulder design to fasten securely to jars, prevents the acid solution from seeping through the cover or around the terminal posts, thus eliminating corrosion and its troubles.

Shipped Fully Charged—Ready to Use

Every De Luxe Battery is given a thorough final inspection just before shipping. Very great care is taken in crating and packing so the battery will reach you in perfect condition. Each De Luxe Battery is designed to fit exactly in the space provided by the car manufacturer and is equipped with solidly attached handles that will hold securely regardless of the method used for clamping in the battery. De Luxe batteries are made for any make car. Average shipping weight, 65 pounds.

See Our
Low Prices
on Next Page

Auto Electric Cables

Aver. Ship. wts., 2 to 6 oz. per foot.

Single Primary Cable
Diam. $\frac{3}{16}$ in.
An excellent conductor for low tension use. Thoroughly insulated with high-grade rubber, one yellow varnished cloth tape and single varnished braid.
61 E 6951—Price, per foot.....5c

Magneto Secondary Cable
Diam. $\frac{3}{16}$ in.
Suitable for high tension magneto use, insulated with high-grade red and black rubber over which are two yellow varnished cloth tapes, two braided coverings.
61 E 6953—Price, per foot.....8c

Heavy Secondary High Tension Cable
Diam., $\frac{1}{2}$ in.
Made for heavy work and high voltage. Insulated with three layers of high-grade black, white and black rubber, three yellow varnished cloth tapes, two braided coverings, one saturated with clear wax; outer braid varnished coated.
61 E 6954—Price, per foot.....14c

Multiple Cable
Diam., $\frac{1}{4}$ x $\frac{3}{8}$ in.
Two-lead primary. Especially suitable for lights or low tension use. Each conductor insulated with one varnished cloth tape and one varnished glazed braid. Colors, red and black.
61 E 6952—Price, per foot.....7c

Primary Cable
Diam., $\frac{3}{16}$ in.
Made for low tension use such as lights and from battery to coils. Insulated with high-grade white and black rubber.
61 E 6957—Price, per foot.....4c

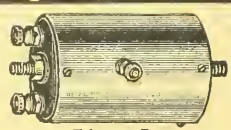
Spotlight Cord
Also used for horns. Several strands of twisted copper wire, covered with cotton wrapping over which is rubber insulation. Braided black covering on outside.
61 E 6963—Price, per foot.....5c

Secondary High Tension Cables
Diam., $\frac{1}{2}$ in.
Used on secondary high voltage, as from distributor to plugs. Insulated with high-grade rubber covering, three layers.
61 E 6959—Price, per foot.....7c

Magneto Cable
Diam., $\frac{3}{16}$ in.
Suitable for magneto use or medium secondary use. Insulated with high-grade gray and black rubber, three layers.
61 E 6958—Price, per foot.....6c

Starting Cable
A high-grade, heavily wound cable of sufficient resistance to carry heavy battery discharge charges to starter. Insulated with two varnished cloth tapes and two weather-proof braids. Each covering is thoroughly saturated with weather-proof varnish.
61 E 6955—Diam., $\frac{1}{2}$ in., for cars up to 25 H. P. Per ft.....12c
61 E 6956—Diam., $\frac{3}{4}$ in., for cars more than 25 H. P. Per ft.....19c

Dependable Coils, Ignition Batteries and Cables



Sturdy Transformer Coils

Guaranteed One Year

Interchangeable with coils supplied by the manufacturers on cars shown. These coils represent the highest skill in coil making and produce a strong, hot spark even on low voltage. They use very little battery current and operate on low voltage. Brackets, terminals and connections fit perfectly. Resistance units of original construction are supplied so should new ones ever be required, those supplied by each coil maker are interchangeable with these. The case is fibre which is positively heat and waterproof. It is not affected by moisture or heat of the engine. This construction adds considerably to the life of the coil. Each coil is carefully tested under high pressure. Guaranteed free from defects in material and workmanship and also for at least one year's service on the car. Average shipping weight, $2\frac{1}{4}$ lbs.

De Luxe Lighting and Ignition Batteries

For Tractors, Trucks and Autos Not Equipped with Starters



Built of the high grade materials, these batteries will stand up though given extremely hard usage as required on tractors and trucks. Excellent equipment for cars not fitted with starters, also the right type for stationary gas engines. The same care is used in selecting materials and building the different parts of these batteries as is taken in making our De Luxe Starting Batteries. The terminals have an extra washer beneath the seal on top which prevents the acid from getting out, thus stopping corrosion. The clean contact assured by this construction allows the current a free flow that gives a hot, fat spark for ignition and strong bright lights. The terminals are solidly attached so there is no possibility of loose connections. Sizes shown are total over all. Shipped from factory in Chicago.
261 E 3845—6-volt, 40 ampere hours. Length, 7 $\frac{1}{2}$ in., width, 5 $\frac{1}{2}$ in.; height, 9 $\frac{1}{2}$ in. Ship. wt., 23 lbs.....\$13.45
261 E 3846—6-volt, 60 ampere hours. Length, 7 $\frac{1}{2}$ in., width, 6 $\frac{1}{2}$ in.; height, 9 $\frac{1}{2}$ in. Ship. wt., 30 lbs.....\$17.45
261 E 3847—6-volt, 80 ampere hours. Length, 7 $\frac{1}{2}$ in., width, 7 $\frac{1}{2}$ in.; height, 9 $\frac{1}{2}$ in. Ship. wt., 37 lbs.....\$20.45

| Article Number | Make and Model of Car | Name of Ignition System | Price Each |
|----------------|--|-------------------------|------------|
| 61 E 7146 | Allen 1920. All models. | Connecticut. | \$5.75 |
| 61 E 7128 | Briscoe 1916 Mod. 8-38. | Remy. | 5.75 |
| 61 E 7146 | Briscoe 1917-18-19. All models. | Connecticut. | 5.75 |
| 61 E 7138 | Buick 1914-15. All models. | Delco. | 5.75 |
| 61 E 7138 | Buick 1916-17-18-19-early 20. | Delco. | 5.75 |
| 61 E 7138 | Cadillac 1911 to 1920. All models. | Delco. | 5.75 |
| 61 E 7120 | Calmers 1917-18-19-20. All models. | Remy. | 5.75 |
| 61 E 7124 | Chrysler 1916 to 1920. All models. | Remy. | 5.75 |
| 61 E 7146 | Chevrolet 1915 to 1919. All models except 490. | Connecticut. | 5.75 |
| 61 E 7146 | Cole 1913-14-15-16. All models. | Delco. | 5.75 |
| 61 E 7146 | Columbia 1917-18-19-20. All models. | Atwater Kent. | 4.95 |
| 61 E 7146 | Dodge All 1917-18 and early 19. | Delco. | 5.75 |
| 61 E 7146 | Dodge. All late 1919 and 1920. | Northeast. | 5.75 |
| 61 E 7146 | Dort 1916-17-18. All models. | Connecticut. | 5.75 |
| 61 E 7146 | Elgin 1917-18. All models. | Delco. | 5.75 |
| 61 E 7146 | Elgin 1920. All models. | Wagner. | 5.75 |
| 61 E 7146 | Essex 1918-19-20. All models. | Delco. | 5.75 |
| 61 E 7146 | Grant All late 1919-1920-1921. | Remy. | 5.75 |
| 61 E 7146 | Hudson. All models. | Atwater Kent. | 4.95 |
| 61 E 7146 | Hudson 1915-16-17-18-19. All models. | Delco. | 5.75 |
| 61 E 7146 | Hupmobile 1918-19-20. All models. | Remy. | 5.75 |
| 61 E 7146 | Mitchell 1917-18-20. All models. | Atwater Kent. | 4.95 |
| 61 E 7146 | Nash 1917. All models. | Delco. | 5.75 |
| 61 E 7146 | Nash 1920-21. All models. | Wagner. | 5.75 |
| 61 E 7146 | Oakland 1917-18-19-20. All models. | Remy. | 5.75 |
| 61 E 7146 | Maxwell All 1918 to 1920. 12 volt. | Atwater Kent. | 4.95 |
| 61 E 7146 | Oldsmobile All 6 cyl. 1917-18. | Delco. | 5.75 |
| 61 E 7146 | Packard 1916 to 1920. All models. | Delco. | 5.75 |
| 61 E 7146 | Paige 1916-17-18; 1920 Light Six; 21. | Remy. | 5.75 |
| 61 E 7146 | Overland All 1916-17-18-19-21. | Connecticut. | 5.75 |
| 61 E 7146 | Reo 1918-19. All Pass. and Truck. | Remy. | 5.75 |
| 61 E 7146 | Saxon 1917. All models. | Atwater Kent. | 4.95 |
| 61 E 7146 | Saxon 1917-18 S4-6 cyls. All models. | Remy. | 5.75 |
| 61 E 7146 | Studebaker. | Remy. | 5.75 |
| 61 E 7146 | Vellie. All late 1919-1920-21. | Atwater Kent. | 4.95 |
| 61 E 7146 | Willis Knight. All 1917 to 1921. | Connecticut. | 5.75 |

Coils for Other Cars
We can furnish Sturdy Replacement Coils for almost any make of car not shown in above listing. Specify make, year, model of your car and name of Ignition System. Allow \$5.95 and transportation charges when ordering. Av. ship. wt., $2\frac{1}{4}$ lbs.
261 E 7100—Price, each.....\$5.75

Watch Your Battery

Don't ruin your batteries due to neglect. Use an acid testing hydrometer which shows accurately the efficiency of your battery, also used for regulating quantity of acid above the plates.



Acid-Testing Hydrometer Outfit

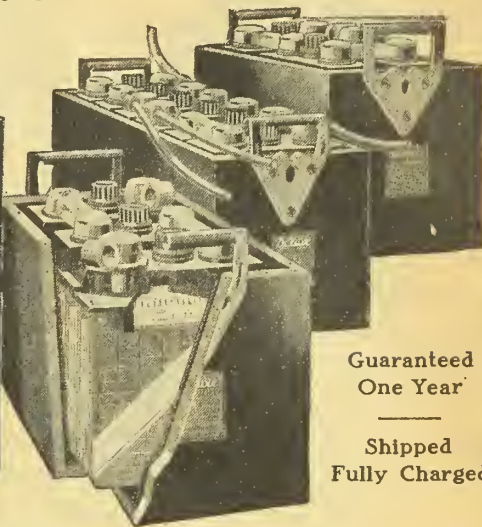
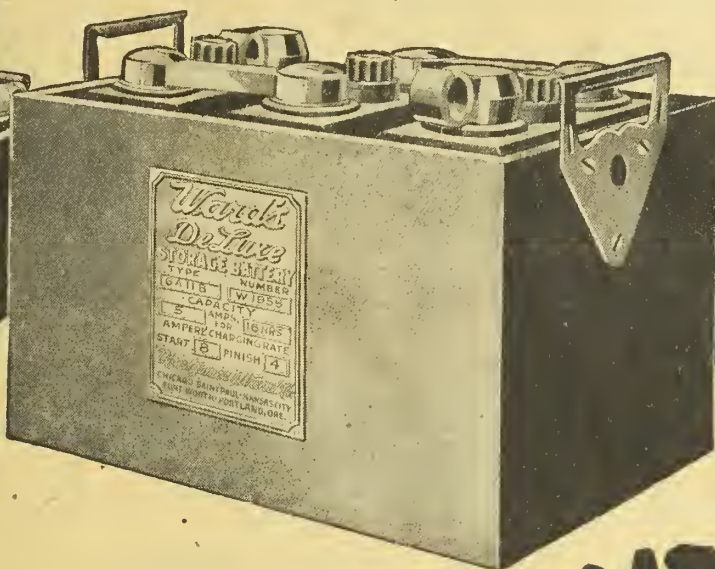
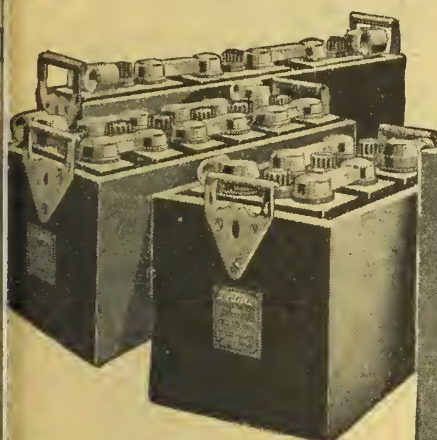
Very handy and convenient outfit. Jar is sealed by rubber disc on the hydrometer keeping out dust and dirt. Hydrometer is of the very best type protected by rubber disc at bulb and rubber square at lower end, preventing it from rolling off bench or running board. Ship. wt., 2 $\frac{1}{2}$ lbs. Hydrometer, 1 lb.
61 E 3843—Complete outfit.....\$1.25
61 E 3842—Hydrometer. Each, only.....69c

Non-Break Hydrometer

If you drop this hydrometer on a garage floor, knock it off the fender or bench, it won't break. Special rubber discs and bulb protect the glass. Easily read figures on accurate float. Will outlast the ordinary kind. Ship. wt., about 1 $\frac{1}{4}$ lbs.
61 E 3830—Price, each.....60c

Storage Batteries

for
Starting, Lighting and Ignition



\$19.95

and Up

Guaranteed
One Year

Shipped
Fully Charged

Why Our
Prices
Are
Lower

WE sell thousands of De Luxe Batteries, so naturally make big contracts for raw materials and obtain low prices on the best quality. There's only one profit added to the manufacturing cost, and that's a small one. If Ward's De Luxe Batteries were sold in any other way than direct-to-you by mail, it would be necessary to raise the price several dollars. Our guarantee makes certain you will be absolutely satisfied.

Customers
Tell Us
De Luxe →
Prices

SAVE \$5.00 to \$17.50

Size Information

If you are not certain of the model of your car, tell us the length, width and height to top of the handles of your present battery.

De Luxe Battery Prices

Unless Otherwise Specified, all Batteries Listed Below are 6 Volt.
Average shipping weight, 65 pounds.

De Luxe Starting Batteries are shipped from factory in Chicago, Ill. A large stock constantly on hand for popular cars. On orders for other cars we usually require three to ten days' time to make up.

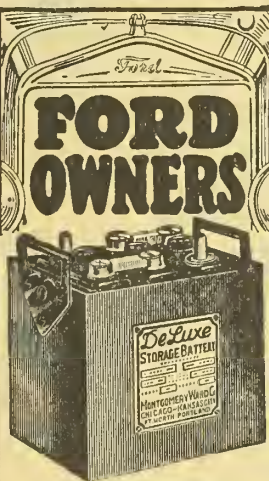
| Article Number | Name of Car | Year | This Battery Will Fit Models | Price |
|----------------|-------------|------------|---|---------|
| 261 E 4047 | Allen | 1917 to 20 | 37-41 | \$21.75 |
| 261 E 4048 | Apperson | 1918 to 20 | 6-18 & 8-18 | 22.75 |
| 261 E 3978 | Auburn | 1916 to 20 | 4-38, 6-38, 6-39B, 6-39, Sport... | 22.75 |
| 261 E 3979 | Auburn | 1917-18 | 6-44 | 22.75 |
| 261 E 3940 | Auburn | 1919 | All Models | 22.75 |
| 261 E 3911 | Briscoe | 1917 | 4-24 only | 22.75 |
| 261 E 3913 | Briscoe | 1918 to 20 | 4-24, 34 | 22.75 |
| 261 E 3855 | Buick | 1914-15 | B24, B25, B55, C24, C25 | 22.75 |
| 261 E 3857 | Buick | 1915 | C36, C37, 54, 55, 4 Truck | 24.25 |
| 261 E 3859 | Buick | 1916 to 19 | D54, 55, 4 Truck | 24.25 |
| 261 E 3858 | Buick | 1916 | D44, 45, 46, 47 | 24.25 |
| 261 E 3860 | Buick | 1917-18 | All Models | 24.25 |
| 261 E 4044 | Buick | 1919-20 | All Models H and K | 24.25 |
| 261 E 3914 | Cadillac | 1914 to 20 | All Models | 34.95 |
| 261 E 3915 | Case | 1917-18 | T & U | 22.75 |
| 261 E 3916 | Case | 1918-19 | U-18 | 22.75 |
| 261 E 4040 | Case | 1920 | All Models | 24.25 |
| 261 E 3861 | Chalmers | 1915 to 18 | 32-6-40, 35-6-30, 35C | 24.25 |
| 261 E 3917 | Chalmers | 1919-20 | All Models | 24.25 |
| 261 E 3862 | Chandler | 1913 to 16 | 14, 15, 15B, 16 | 22.75 |
| 261 E 3863 | Chandler | 1916-17 | Series 10, 000 | 22.75 |
| 261 E 3864 | Chandler | 1917-18 | Series 18 | 22.75 |
| 261 E 3918 | Chandler | 1919 | All Models | 24.25 |
| 261 E 4039 | Chandler | 1920 | All Models | 24.25 |
| 261 E 3959 | Chevrolet | 1914 to 16 | L, H2, H3, H4, (Monroe), Baby Grand, Amesbury, Royal Mail | 24.25 |
| 261 E 3960 | Chevrolet | 1914-15 | L, H2, H4, (Baby Grand), H24, (Royal Mail) | 24.25 |
| 261 E 3866 | Chevrolet | 1916-17 | 490 | 24.25 |
| 261 E 3908 | Chevrolet | 1917 | Baby Grand F | 24.25 |
| 261 E 3961 | Chevrolet | 1918 | 490 | 24.25 |
| 261 E 3867 | Chevrolet | 1918 | F R Baby Grand | 24.25 |
| 261 E 3868 | Chevrolet | 1918 | D-8 Cyl | 24.25 |
| 261 E 3919 | Chevrolet | 1919-20 | TA, FB, FC, FA, FB, and T | 24.25 |
| 261 E 3920 | Chevrolet | 1919 | 490 | 24.25 |
| 261 E 3921 | Chevrolet | 1919 | D4, D5 | 24.25 |
| 261 E 3988 | Chevrolet | 1920 | 490 | 24.25 |

For Chevrolet be sure to state length, width and height to top of handle of old battery.

| | | | | |
|------------|-----------|------------|---|---------|
| 261 E 3923 | Cole | 1917 | All Models | \$24.25 |
| 261 E 3924 | Cole | 1918 | All Models | 24.25 |
| 261 E 4041 | Cole | 1919-20 | All Models | 24.25 |
| 261 E 4049 | Columbia | 1917 to 20 | A | 22.75 |
| 261 E 4050 | Davis | 1916-17 | 6E-6J-K17 | 24.25 |
| 261 E 4051 | Davis | 1918 to 20 | 611, 1, K, L | 24.25 |
| 261 E 3869 | Dodge | 1915 to 20 | All Models, 12 Volt | 29.45 |
| 261 E 3925 | Dort | 1916 to 20 | 5A, 9A, 10, 10C, 11, 15S, 15 | 22.75 |
| 261 E 3926 | Dort | 1920 | 38, 39, L only | 22.75 |
| 261 E 3989 | Elgin | 1919-20 | All Models | 22.75 |
| 261 E 4052 | Elcar | 1918 to 20 | 4 & 6 Cyl | 22.75 |
| 261 E 3990 | Essex | 1919-20 | All Models | 24.25 |
| 261 E 3903 | Ford | 1919-1921 | All Models with Liberty Starter | 19.95 |
| 261 E 3926 | Franklin | 1916 to 20 | Series 9, 12 Volt | 30.95 |
| 261 E 3991 | Grant | 1917 | All Models | 22.75 |
| 261 E 3992 | Grant | 1918-19 | Pass & 1 1/2 ton Truck | 24.25 |
| 261 E 3993 | Grant | 1920 | All Models | 24.25 |
| 261 E 3927 | Haynes | 1917 to 20 | 36, 37, 38, 40, 41, 44. All 1920 Models | 29.50 |
| 261 E 3928 | Haynes | 1918-19 | 39 | 24.25 |
| 261 E 3963 | Hudson | 1914-15 | 6-40 | 24.25 |
| 261 E 3870 | Hudson | 1916-18 | 6-40, Super Six | 24.25 |
| 261 E 3964 | Hudson | 1917-19 | All Models | 24.25 |
| 261 E 3965 | Hupmobile | 1914 | H.A. | 24.25 |
| 261 E 3872 | Hupmobile | 1915 to 17 | N, NL, NQ, NL, NG, NU | 22.75 |
| 261 E 3873 | Hupmobile | 1918 to 20 | All Models | 22.75 |
| 261 E 4053 | Jackson | 1917 | 349 | 22.75 |
| 261 E 4054 | Jackson | 1918 | 350-34 | 24.25 |
| 261 E 4055 | Jackson | 1920 | All Models | 22.75 |
| 261 E 3874 | Jeffery | 1915-16 | Jeffery 4, 4, 62 | 24.25 |
| 261 E 3968 | Jeffery | 1917 | All Models | 22.59 |

Made for Every Car

If your car is not shown here, write and we will quote prices. Specify name of car, year, model and name of starting system. Also give voltage, length, width and height to top of handles of old battery.



De Luxe Batteries
for Fords
\$19.95

The same De Luxe quality which has given wonderfully satisfactory service to thousands of large car owners is put into these De Luxe Storage Batteries used in connection with starters for Fords. The low prices we quote are the result of our ability to buy in tremendous quantities and our method of lowering handling expenses by selling direct to you from five big stores. Average ship. wt. about 55 lbs.

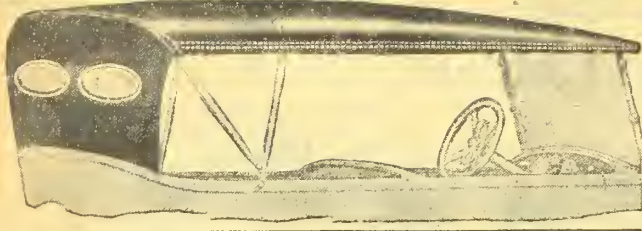
261 E 3903 - For Starters furnished by Ford Motor Co. 6-volt, 1919-20-21. \$19.95

261 E 3833 - Gray and Davis 1916-17-18. Double Unit. 12-volt, each. \$19.95

Note - More than one size battery furnished. Be sure to state length, width, and height to top of handles of old battery.

| Article Number | Name of Car | Year | This Battery Will Fit Models | Price |
|----------------|---------------|------------|---|---------|
| 261 E 3931 | Jordan | 1916 to 20 | B Series 1, 60, F only | \$24.25 |
| 261 E 3934 | Jordan | 1920 | M only | 22.75 |
| 261 E 4056 | Kissel Kar. | 1917-18 | 100 Point Six | 22.75 |
| 261 E 4057 | Kissel Kar. | 1917-18 | Double Six-6-42 | 24.25 |
| 261 E 4058 | Kissel Kar. | 1919-20 | All Models | 24.25 |
| 261 E 3983 | Lexington | 1916 to 18 | All Models O | 22.75 |
| 261 E 3984 | Lexington | 1919-20 | All Models | 24.25 |
| 261 E 3985 | Liberty | 1916 to 18 | 10A, 10B | 22.75 |
| 261 E 3986 | Liberty | 1919-20 | All Models | 24.25 |
| 261 E 3933 | Marmion | 1918 to 20 | All Models | 29.95 |
| 261 E 3876 | Maxwell | 1913-14 | 50-6, 6 Volt | 28.25 |
| 261 E 3877 | Maxwell | 1913-14 | 35, 6 Volt | 24.25 |
| 261 E 3878 | Maxwell | 1915 | 25 Gray Davis System, 6 Volt | 22.75 |
| 261 E 3879 | Maxwell | 1915 to 17 | 25, 12 Volt | 31.50 |
| 261 E 3880 | Maxwell | 1918 | 25, 12 Volt | 31.50 |
| 261 E 3934 | Maxwell | 1919-20 | 12 Volt all 1919 and 1920 up to 300,000 series | 31.50 |
| 261 E 3995 | Maxwell | 1920 | All Models over 300,000 series, 6 Volt | 21.75 |
| 261 E 3881 | Mitchell | 1915 | Lt. 4, Lt. 6, 12 Volt | 37.25 |
| 261 E 3883 | Mitchell | 1917-18 | C42, 2nd Ser. 1916, C42 | 24.25 |
| 261 E 3884 | Mitchell | 1917-18 | D40, 2nd Ser. 1916 | 22.75 |
| 261 E 3935 | Mitchell | 1919-20 | E40, E42, All 1920 Models | 22.75 |
| 261 E 3996 | Monroe | 1918 to 20 | M6 Tour. All '19 Models, S 98, 10 | 22.75 |
| 261 E 4059 | Moon | 1916 to 20 | All Models Except 6-36 of 1918 | 24.25 |
| 261 E 4060 | Moon | 1918 | 6-36 of 1918 | 22.75 |
| 261 E 4046 | Nash | 1917-18 | 681, 682, 1919 Trucks 2018, 3018 | 22.75 |
| 261 E 3997 | Nash | 1919 | All Passenger Cars | 22.75 |
| 261 E 3871 | Nash | 1920 | All Passenger Cars | 22.75 |
| 261 E 3885 | Oakland | 1915 | 37, 49 | 24.25 |
| 261 E 3886 | Oakland | 1916 | 38 | 22.75 |
| 261 E 3887 | Oakland | 1916 | 32 | 22.75 |
| 261 E 3888 | Oakland | 1916-17 | 50 | 24.25 |
| 261 E 3970 | Oakland | 1917 | 32 | 22.75 |
| 261 E 3890 | Oakland | 1918 | 34B | 22.75 |
| 261 E 3937 | Oakland | 1919-20 | All Models | 22.75 |
| 261 E 3938 | Oldsmobile | 1916 to 18 | 43, 44, 45A | 22.75 |
| 261 E 3939 | Oldsmobile | 1917 | 45 | 22.75 |
| 261 E 3940 | Oldsmobile | 1919 | 37 | 22.75 |
| 261 E 4042 | Oldsmobile | 1920 | 37A, 45B | 24.25 |
| 261 E 3893 | Overland | 1915 to 20 | 80, 81, 82, 83, 83B, 86, 86B, 85-4, 85-6, 88-6, 83B01, 89-6 | 24.25 |
| 261 E 3892 | Overland | 1916 to 20 | 75, 75B, 90, 90T, 4 | 22.75 |
| 261 E 3895 | Paige | 1914 | 36 | 24.25 |
| 261 E 3971 | Paige | 1913 to 15 | 36, 25 | 22.75 |
| 261 E 3896 | Paige | 1916 | 6-38, 6-46 | 22.75 |
| 261 E 3972 | Paige | 1917 to 20 | K-6-17, J-6-17, 6-39, 6-40, 6-51, 6-55, All '20 Models | 24.25 |
| 261 E 3897 | Reo | 1913 to 15 | R, S, M, F | 29.25 |
| 261 E 3898 | Reo | 1916 to 20 | R, S, M, N, F, All '18, '19, '20 Models, Pass. and Truck | 25.25 |
| 261 E 3973 | Saxon | 1915 | A | 22.75 |
| 261 E 3899 | Saxon | 1916 | Six | 22.75 |
| 261 E 3900 | Saxon | 1917-18 | S4, B5, B14, All '18 Models | 22.75 |
| 261 E 3944 | Saxon | 1919-20 | All Models | 22.75 |
| 261 E 3975 | Scripps-Booth | 1918 | D8, 6-39, 6-40 | 22.75 |
| 261 E 3945 | Scripps-Booth | 1919-20 | All Models | 22.75 |
| 261 E 3905 | Studebaker | 1914 | E.B. SC | 24.25 |
| 261 E 3906 | Studebaker | 1915 | E.C. SD | 24.25 |
| 261 E 3907 | Studebaker | 1916 to 18 | E.D. SF, 7 | 24.25 |
| 261 E 3910 | Studebaker | 1919-20 | All Models | 24.25 |
| 261 E 4061 | Templar | 1918 to 20 | All Models | 24.25 |
| 261 E 3948 | Velle | 1916 to 17 | 9, 10, 11, 12, 14, 15, 15 Ser. 15, Biltwell 27 Ser. | 25.25 |
| 261 E 4043 | Velle | 1914 | R, 6 | 37.75 |
| 261 E 3949 | Velle | 1915 to 20 | 22 Series 22, Biltwell 28 and 39 Series | 22.75 |
| 261 E 3999 | Willys-Knight | 1916-20 | All Models | 30.45 |

Top Recoverers and Paint Outfits



Top Recovering Outfits for Popular Cars

If your top has become shabby in appearance or worn and leaky this New Top Recover will both restore its appearance and give you a top as good as new. Nothing detracts more from the appearance of a car than a cracked and faded old top. Why not replace it with this New Top Recover? They are very good grade imitation leather or cotton mohair and we furnish them at about one-third the cost of a new top. Outfit consists of roof, rear curtain and all the necessary tacks and bindings to put it on. Shipped ready to attach. Simply remove the tacks at the front and rear of the old top covering and back, curtain and slip the new covering over the top bows and padding. Guaranteed to fit perfectly. We carry the New Top Recover in stock for the cars at the left. Shipping weight, about 20 lbs. For Special Top Recoverers see listing below.

Mohair Recovering Outfits with 2 Oval Beveled Plate Glass Lights

We can furnish recovering outfits made of high grade cotton Mohair material for cars at the left fitted with 2 beautiful 6x12 inch oval beveled plate glass lights in rear curtain in place of celluloid at \$3.50 additional. These will be shipped from factory in Chicago, Ill. direct to you. Order by number 361 E 9822, allowing \$3.50 more than prices shown above for Mohair Top Recovering outfit. We can also furnish recovering outfits, for practically all makes of cars for models since 1915 either in cotton mohair or imitation leather with celluloid or glass curtains. If your car is not listed here, write us for prices, being sure to specify the make, year, model of car and kind of material and style of windows you wish.

| Name and Model of Car | High Quality Imitation Leather with Two Oval Beveled Plate Glass Lights | | Mohair Type with Celluloid Windows Like in Original Top | |
|---|---|---------|---|---------|
| | Art. No. | Price | Art. No. | Price |
| Buick D-35, 5 pass. 1917 | | | 461 E 9970 | \$18.40 |
| Buick E-35, 5 pass. 1918 | | | 461 E 9971 | 17.80 |
| Buick D-45, 5 pass. 1916-17 | 461 E 9825 | \$25.45 | 461 E 9972 | 19.40 |
| Buick E-45, 5 pass. 1918 | 461 E 9826 | 25.45 | 461 E 9973 | 19.40 |
| Buick H-45, 5 pass. 1919 | | | | |
| Buick K-45, 5 pass. 1920 | 461 E 9827 | 27.45 | | |
| Chevrolet 490, 5 pass. 1915-16-17 | | | 461 E 9974 | 17.45 |
| Chevrolet 490, 5 pass. 1918-19-20 | 461 E 9828 | 21.45 | 461 E 9975 | 17.25 |
| Dodge, 5 pass. 1915-16-17-18-19 | 461 E 9830 | 25.45 | 461 E 9976 | 19.40 |
| Dodge, 5 pass. with Gypsy curtain 1920 | 461 E 9831 | 25.75 | | |
| Maxwell 25, 5 pass. 1915 | | | 461 E 9977 | 19.60 |
| Maxwell 25, 5 pass. 1916-17 | | | 461 E 9978 | 19.60 |
| Maxwell 25, 5 pass. 1918 | | | 461 E 9979 | 19.60 |
| Maxwell 25, 5 pass. 1919-20 | 461 E 9832 | 24.45 | | |
| Oakland 32, 1915, 32B, 1916, 5 pass. | | | 461 E 9892 | 19.40 |
| Oakland 34, 5 pass. 1917 | | | 461 E 9893 | 19.40 |
| Oakland 34B, 5 pass. 1918-19, 34C, 1920 | 461 E 9833 | 25.45 | | |
| Oldsmobile 37, 1918-19, 37B, 1920 | 461 E 9834 | 28.45 | | |
| Overland 75, 5 pass. 1916-17 | | | 461 E 9980 | 18.60 |
| Overland 90, 5 pass. 1917-18-19 | 461 E 9835 | 24.45 | 461 E 9981 | 19.40 |
| Reo 4 cyl. 5 pass. 1916-17 | | | 461 E 9895 | 21.40 |
| Studebaker 4&6 cyl. 5 pass. 1916-17 | | | 461 E 9896 | 21.40 |

Back Curtains

Very attractive replacement curtains furnished in mohair type or imitation leather with two 6x12 oval beveled plate glass windows. Wrinkled or cracked back curtains make cars shabby looking. The new glass windows not only improve car's appearance but are easily kept clean so you see plainly. You can put it on, as all necessary tacks, etc., are included. Each curtain will fit perfectly. Ship. wt., about 5 1/2 lbs.

| Name and Model of Car | Imitation Leather | | Mohair Type | |
|---------------------------------|-------------------|---------|-------------|--------|
| | Art. No. | Price | Art. No. | Price |
| Buick D-45, 1916-17 | | | 561 E 9620 | \$8.65 |
| Buick E-45, 1918 | | | 561 E 9621 | 8.65 |
| Buick H-45 to 1919 Gypsy | 561 E 9635 | \$12.45 | | |
| Buick K-45, 1920 | 561 E 9635 | 12.45 | | |
| Gypsy Curtain. | | | | |
| Chevrolet 490, 1915-16-17 | | | 561 E 9622 | 8.65 |
| Chevrolet 490, 1918-19 and 1920 | 561 E 9636 | 9.15 | 561 E 9623 | 8.65 |
| Dodge 1915 to 1919 | 561 E 9637 | 9.15 | 561 E 9624 | 8.65 |
| Dodge 1920 Gypsy | | | | |
| Curtain. | 561 E 9638 | 12.45 | | |
| Maxwell 25, 1916-17 | | | 561 E 9625 | 8.65 |
| Maxwell 25, 1919-20 | 561 E 9639 | 9.15 | | |
| Oakland 32, 1915 | | | 561 E 9626 | 8.65 |
| Oakland 32B, 1916 | | | 561 E 9626 | 8.65 |
| Oakland 34B, 1918-19 | | | | |
| 34C, 1920 | 561 E 9640 | 9.15 | | |
| Overland 90, 1917-18-19 | 561 E 9641 | 9.15 | 561 E 9627 | 8.65 |
| Overland A-4, 1920 | 561 E 9642 | 9.15 | | |



Enamel your car today and drive it tomorrow. Blaxshine is a wonderful easy applying auto enamel that flows smoothly and dries hard overnight. It leaves a finish that will not crack or chip and does not show brush marks like ordinary paint. The finish is a glossy black and will resist heat and cold. Not only does Blaxshine make your car look much better, but it also preserves the body. It can be washed with warm or cold water without destroying the lustre. Only one coat is needed to bring your car back to its original appearance. The Blaxshine outfit is complete, containing three-pint can Blaxshine—one extra fine good size brush—sandpaper—steel wool and a cup to pour the enamel in. A coat of Blaxshine will increase the value of your car if you are going to sell it or will improve its appearance for your own use. Shipping weights, 2, 3 and 5 pounds.

| | |
|---------------------------|--------|
| 61 E 2268—Pint can, each | \$.69 |
| 61 E 2267—Quart can, each | 1.29 |
| 61 E 2266—Special outfit | 2.75 |

Riverside Gloss Auto Paint

For repainting automobile hoods, fenders, etc. One coat gives automobile glossy cover of colored paint. Made to dry very quickly. Hardens in 24 hours. Stands the weather, hot and cold. Shipping weight, pint, 1 1/2 pounds. quart, 3 1/2 pounds.

| Colors | Article Number | Pint Size | Article Number | Quart Size |
|------------|----------------|-----------|----------------|------------|
| Dark Gray | 61 E 9707 | \$1.05 | 61 E 9713 | \$1.95 |
| Deep Blue | 61 E 9708 | 1.05 | 61 E 9714 | 1.95 |
| Deep Red | 61 E 9709 | 1.05 | 61 E 9715 | 1.95 |
| Deep Green | 61 E 9710 | 1.05 | 61 E 9716 | 1.95 |
| Black | 61 E 9712 | .80 | 61 E 9718 | 1.50 |

Glossy Black Paint

High-grade finish. Not affected by heat or cold. For finishing lamps, hoods, or fenders. Comes ready to use. Dries overnight. 1/2 pint size o a n s. Shipping weight, 14 ounces.

61 E 9719—Price ... 49c

Orange Shellac

Made from Calcutta orange shellac. Extra quick drying. Free from resin and all adulterants. For the finest work. Especially prepared for auto carburetors, floats and gaskets. Shipping weight, 1 1/4 pounds.

61 E 9726—Pint size can... 59c

Form-A-Metal Iron Cement

Scientific chemical compound which when mixed with water becomes like iron after drying. Excellent for leaky radiators, water jackets or articles about the home. Shipping weight, about 8 and 16 ounces.

61 E 9890—Small size... 25c
61 E 9891—Large size... 42c

Soldering Paste

A positive non-corrosive flux for soldering all metals—especially useful with brass, copper, etc. No liquid to spill. Holds to surface. Easier to use as you just dab it on. Heat up flux with soldering iron and use solder in usual way. Contents, 2 ounces. Shipping weight, 1/4 pound.

61 E 9232—Price, per can... 15c

Celluloid Mending Outfit

For mending and patching in g broken or cracked celluloid auto curtains or any articles made of celluloid. This outfit consists of 1-ounce bottle Celluloid Mending Liquid; assortment of strips for patching on car, but serves to keep car clean. Size, 10x14 inches. Shipping weight, 1 1/2 pounds.

61 E 9667—Complete outfit... 33c

Cocoa Mat

Closely woven and well bound. Fits any car. Two special spring clamps (woven in) hold it on securely. Not only gives positive foothold when getting on car, but serves to keep car clean. Size, 10x14 inches. Shipping weight, 1 1/2 pounds.

61 E 3755—Price, each... 89c

Riverside Auto Polish

Produces a waterproof finish; will not collect dust. Contains no wax, soap, varnish or gummy cementing substances. Removes that dull, smoky look which generally results from using just soap and water. Can be applied either with a cloth or sprayer.

Cars that have a good finish are always worth more, so keep yours polished. Shipping weights, 3 and 9 pounds.

61 E 9553—Quart size... 49c
61 E 9554—Gallon size... 98c

X Liquid Radiator Cement

Using Liquid X is the easiest, quickest way of repairing all kinds of water leaks in metal pipes, radiators, etc.

"X" will not injure metal or rubber. No danger of clogging. Keeps the radiator tubes clean. Shipping weight, 1 1/4 and 1 1/2 pounds.

561 E 9322—1/2-pint size for Ford, Maxwell and small cars... \$.65
561 E 9213—Pint size... 1.35

Radiator Cement

It will repair water leaks in automobile radiators, gaskets and hose connections. Also for steam boilers hot water heating, steam radiators, and in fact, all kinds of pipe connections. May be used in any of the following solutions. Does not harden the water. Ship. wt., 1 1/4 and 1 1/2 pounds.

61 E 9323—1/2-pint size... 32c
61 E 9209—Pint size... 53c

Soldering Outfit

A complete outfit for soldering all articles such as radiators, wire connections, etc., or articles about the home. Contains all articles necessary for doing first class job with plain instructions so anyone can use it satisfactorily. Outfit consists of soldering iron with handle, piece of tape solder, can of soldering paste and package of steel wool. Packed in strong box. Ship. wt., complete, about 1 1/2 pounds.

61 E 9231—Price, complete outfit... \$1.20



Stik-Tite Curtain Windows

Stick them on like an Inner Tube Patch

Oval Window—Made of cotton Mohair to fit Overland, Buick prior to 1918. Maxwell, except 1919. Chevrolet, Briscoe and many other cars which have an oval opening of this size. Will fit any oval opening 8 1/2 inches deep or less and 18 1/2 inches long or less. Av. ship. wt., about 8 oz.

61 E 9942—Price, each... 95c

Oval Window—Made of cotton Mohair to fit all 1916-17 Studebaker Touring Cars. Will also fit any oval opening 8 inches deep or less and 22 1/2 inches long or less.

61 E 9943—Price, each... \$1.45

Stik-Tite Jiny Design—Will fit either rear or side curtains of 1916-17-18 Dodge cars. Will fit any curtain opening of Gothic shape 10 1/2 inches long or less or 3 1/2 inches wide or less. Made of standard Mohair.

61 E 9944—Price, each... 35c

For Dodge Cars—To fit either rear or side curtains of Dodge 1919-1920. Made of long grain Motor fabric.

61 E 9873—Price, each... 35c

Square Window—Fits 1918 Buick models E-45 to E-50. Also Allen 1917 and 1918. Made of long grain Motor material. Will fit any opening 10 inches square or less.

61 E 9902—Price, each... 79c

Window Lights for Dodge, Maxwell and Chevrolet

Good grade celluloid. Fastened with small cleats which are furnished. Any curtain window can be replaced in a few moments' time. Ship. wt., about 8 oz.

61 E 9945—Maxwell rear curtain light fits all models 1915-16-17. Each light... 92c

61 E 9946—Maxwell light for front side curtain, size 7x12x3/4 inches. Each light... 58c

61 E 9947—Maxwell light for rear side curtain. Each light... 35c

61 E 9948—Dodge rear and side curtains Gothic. Size, 12 1/2 x 4 1/4 inches. Each light... 35c

61 E 9874—Chevrolet rear curtain light fits 1917-18-19 models, each light... 78c

Auto Top Mending Outfit

Repairs mohair or rubberized tops, seats, side curtains, etc. Easily applied. Will fix even large tears. About 36 square inches repair patch, bottle of cement and dauber. Full directions furnished with outfit. Ship. wt., about 1 lb.

61 E 1743—For Rubberized Tops. Price complete outfit... 38c

61 E 1744—For Mohair Tops... 38c

Top Dye and Leather Renewer

Makes old shabby-looking tops (leather or pantosote) seats, top linings look bright and fresh at a very small cost. Preserves and waterproofs them as well. Jet black in color. Ship. wt., 1 1/4 lbs.

61 E 9651—Pint Size can... 55c

Mohair Top Dye

Renews, waterproofs, and dyes mohair tops, lining and curtains in one application. Easy to apply. Also acts as a preservative. Can be used on leather seats or cushions. Dries in a few minutes. Deep black in color. Ship. wt., 2 1/4 lbs.

61 E 9658—Quart Size Can... 89c

Auto "Spra" Brush

Gets at those places that are hard to reach and cause so much trouble when using a rag or sponge. The Auto "Spra" is a water saver—doesn't use nearly as much water as the hose alone does. Quickly attached to any standard hose coupling or ordinary garden hose. There are no loose movable parts and the coupling has a shoulder to hold it in place. Long hard maple handle reaches out-of-the-way places. Spray part (patented) in seamless brass. Best China bristles used. Entire length, 17 inches. Ship. wt., 1 1/4 lb.

61 E 9601—Price, each... \$1.73

Handy Spoke Brush

Easily reaches the most inaccessible parts. Just the thing for spokes, under fenders and around the springs. Keeps you away from the dirt. Rigid wood handle. Will outlast several lower priced brushes. Length, 18 inches. Ship. wt., 12 oz.

61 E 9602—Price, each... 45c

Dustless Duster

This duster takes up the dust and will not scratch the finish like rags. Readily washed with soap and water. Length of brush part, 10 inches; width, 5 1/2 inches; length of handle, 4 1/2 inches. Shipping weight, 3/4 pound.

61 E 9608—Price, each... 49c

Canvas Water Bucket

Made of genuine brown Army Duck, waterproofed, 3/4 in. binding web at center seam and strongly mended throughout. When not in use is folded flat, and can be put under auto seat or in tool box. Capacity, 6 quarts. Ship. wt., 8 ounces.

61 E 9877—Price, each... 60c

Cold Weather Necessities



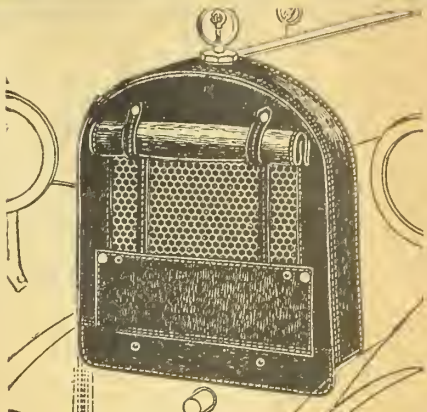
Complete Radiator and Hood Covers

Material the same as used in our radiator covers. Covers both radiator and entire hood. Shipping weight, each, about 4 pounds.

Radiator Covers for Every Make of Car

Needed on every Water-Cooled Car

Keeps the water in radiator warm, also keeps the oil from stiffening. Made of waterproof enameled fabric lined with good quality heat retaining material. Equipped with strong straps and metal clips, insuring a secure fit. Lower section of curtain rolls up, upper section rolls down and overlaps lower part of center. This affords whole or partial protection as may be desired. The following radiator covers carried in stock. Average shipping weight, 2 pounds.



| Art. No. | Name and Model of Car | Price |
|-----------|--|--------|
| 61 E 3582 | Briscoe 1917-18-19-20-21 | \$6.90 |
| 61 E 3783 | Buick all 4 cylinder Models 1916-17-18 | 5.90 |
| 61 E 3764 | Buick Models D-44-45-46-47, 1916-17 | 6.45 |
| 61 E 3765 | Buick Models E-44-45-46-47-49, 1918 | 6.90 |
| 61 E 3785 | Buick all 6 cylinder Models 1919-20 | 6.90 |
| 61 E 3581 | Buick all 6 cylinder Models 1921 | 7.65 |
| 61 E 3767 | Chevrolet Models FA, 1917-18 | 6.45 |
| 61 E 3768 | Chevrolet Models 490, 1915-16-17-18-19-20-21 | 5.90 |
| 61 E 3769 | Dodge 1915; Early 1916 | 5.90 |
| 61 E 3770 | Dodge late 1916; all Models 1917-18-19-20-21 | 6.45 |
| 61 E 3771 | Maxwell Models 25, 1916-17 | 5.90 |
| 61 E 3772 | Maxwell Models 25, 1918-19 | 6.45 |
| 61 E 3773 | Maxwell Model 25, 1920-21 | 6.45 |
| 61 E 3794 | Nash all 6 cylinder Models 1918-19-20-21 | 8.25 |
| 61 E 3583 | Nash 4 cylinder Models 41, 1921 | 8.25 |
| 61 E 3795 | Oakland Models 6-34, 1917; 6-34B, 1918-19 | 6.45 |
| 61 E 3584 | Oakland 34C, 1920-21 | 6.90 |
| 61 E 3796 | Oldsmobile Models 37, 1917-18; 37A, 1919-20-21 | 6.90 |
| 61 E 3771 | Overland Models 75, 1916-17 | 5.90 |
| 61 E 3772 | Overland Model 90, 1917-18-19 | 6.45 |
| 61 E 3797 | Overland Model 4, 1920-21 | 6.45 |
| 61 E 3766 | Reo 4 cylinder 1915-16-17 | 7.65 |
| 61 E 3763 | Reo 4 cylinder 1918-19 | 7.65 |
| 61 E 3673 | Reo 6 cylinder 1920-21 | 7.65 |
| 61 E 3674 | Saxon 6 cylinder 1915-16-17-18-19 | 6.90 |
| 61 E 3585 | Saxon 4 cylinder 1920-21 | 6.90 |
| 61 E 3767 | Studebaker 4 cylinder 1916-17-18 | 6.45 |
| 61 E 3768 | Studebaker 6 cylinder 1916-17-18 | 6.90 |
| 61 E 3759 | Studebaker light 6, 1919; Special 6, 1920-21 | 8.25 |
| 61 E 3586 | Studebaker light 6, 1920-21 | 7.65 |
| 61 E 3784 | Studebaker light 4, 1919 | 6.90 |

| Art. No. | Name and Model of Car | Price |
|-----------|--|--------|
| 61 E 3688 | Allen 41, 1918; 43, 1919-20-21 | \$2.85 |
| 61 E 3566 | Auburn Model 39, 1919-20-21 | 3.30 |
| 61 E 3692 | Buick D-44, D-45, D-46, D-47, 1916-17 | 2.85 |
| 61 E 3694 | Buick D-34, D-35, 1917; E-34, E-35, 1918 | 2.70 |
| 61 E 3695 | Buick, All 6 Cylinder Cars, 1917-18-19-20 | 3.05 |
| 61 E 3568 | Buick, All 6 Cylinder Models, 1921 | 3.30 |
| 61 E 3567 | Briscoe 1917-18-19-20-21 | 2.70 |
| 61 E 3699 | Chalmers 32A, 1915; 32-B, 1916, 6-40, 1916 | 3.05 |
| 61 E 3700 | Chalmers, 6-35A, 1916-17; 6-30, 1916-17; 6-35C, 1917 | 3.05 |
| 61 E 3711 | Chalmers 6-35B, 1918-19; 6-35C, 1918-19; 6-30, 1918-19 | 3.45 |
| 61 E 3569 | Chalmers 6-35B and 6-35C, 1920-21; 6-30, 1920-21 | 3.30 |
| 61 E 3713 | Chandler Model 17 Late 1916-17; Model 18 Early 1918 | 3.30 |
| 61 E 3790 | Chandler Touring, Roadster, Coupe, Sedan, 1918-1919 | 3.30 |
| 61 E 3791 | Chandler Dispatch 1918-19; All Models 1920-21 | 3.30 |
| 61 E 3714 | Chevrolet Models F. A. 1917-18 | 2.85 |
| 61 E 3715 | Chevrolet Models 490, 1915-16-17-18-19-20-21 | 2.70 |
| 61 E 3792 | Chevrolet Model F. B. Early 1919 | 3.30 |
| 61 E 3677 | Chevrolet Model F. B. Late 1919-20-21 | 3.30 |
| 61 E 3778 | Chevrolet H-2, H-3, H-4, 1915-16 | 2.85 |
| 61 E 3570 | Cleveland All Models 1920-21 | 2.85 |
| 61 E 3717 | Dodge 1915; Early 1916 | 2.70 |
| 61 E 3718 | Dodge Late 1916; All Models 1917-18-19-20-21 | 2.70 |
| 61 E 3571 | Dort Model 8, 11, 1918-19, 10, 15, 1920 | 2.80 |
| 61 E 3572 | Dort Model 17, 1921 | 2.80 |
| 61 E 3678 | Elgin Model H, 1919; K, 1920-21 | 2.85 |
| 61 E 3723 | Hupmobile Model K, 1915-16; N, 1917 | 3.05 |
| 61 E 3724 | Hupmobile Model R, 1918-19 | 2.70 |
| 61 E 3679 | Hupmobile Model R, 1920-21 | 2.85 |
| 61 E 3573 | Gardner 1920-21 | 2.80 |
| 61 E 3720 | Jeffery, Chesterfield Models 1915, 4-62, 6-61, 1916; 4-72, 6-71, 1917-18 | 3.30 |
| 61 E 3574 | Lexington 6-S, 1920-21 | 2.85 |

| Art. No. | Name and Model of Car | Price |
|-----------|--|--------|
| 61 E 3736 | Maxwell Model 25, 1916-17-18-19 | \$2.80 |
| 61 E 3681 | Maxwell Model 25, 1920-21 | 2.80 |
| 61 E 3721 | Nash Models 6-81, 6-82, 6-83, 6-84, 6-85, 6-86, 6-87, 1918-19-20-21 | 2.85 |
| 61 E 3575 | Nash, 4 Cylinder Models 41, 1921 | 3.05 |
| 61 E 3789 | Oakland Models 6-34, 1917; 6-34B, 1918-19 | 2.70 |
| 61 E 3576 | Oakland Model 34C, 1920-21 | 2.85 |
| 61 E 3786 | Oldsmobile Models 37, 1917-18; 37A, 1919-20-21 | 2.85 |
| 61 E 3787 | Oldsmobile Models 45, 1917-18; 45A, 1919 | 3.30 |
| 61 E 3680 | Oldsmobile Models 45B, 1920; 46, 1921 | 3.30 |
| 61 E 3577 | Oldsmobile Model 43A, 1921 | 3.30 |
| 61 E 3727 | Overland Models 81, 1915; 83, 1916 | 3.05 |
| 61 E 3728 | Overland Models 80, 1915; 84, 1916; 85, 4 and 6 Cylinders 1917-18 | 3.05 |
| 61 E 3729 | Overland Models 82, 1915; 86, 1916 | 3.30 |
| 61 E 3731 | Overland Models 75, 1916-17; 90, 1917-18-19 | 2.85 |
| 61 E 3734 | Overland Models 89, 6 Cylinders, 1917-18, 19, with Round Edge Radiator | 3.05 |
| 61 E 3682 | Overland Model A-4, 1920-21 | 2.80 |
| 61 E 3739 | Reo 6 Cylinders, 1915-16-17 | 3.30 |
| 61 E 3779 | Reo 4 Cylinders, 1918-19 | 3.45 |
| 61 E 3738 | Reo fifth, 1915-16-17 | 3.30 |
| 61 E 3683 | Reo 6 Cylinders, 1920-21 | 3.45 |
| 61 E 3741 | Saxon 6 Cylinders, 1915-16-17-18-19 | 2.80 |
| 61 E 3578 | Saxon 4 Cylinders, 1920-21 | 2.85 |
| 61 E 3743 | Studebaker 4 Cylinders, 1916-17-18; 6 Cylinders, 1915-16-17-18 | 3.05 |
| 61 E 3780 | Studebaker light 4, 1919 | 2.85 |
| 61 E 3781 | Studebaker light 6, 1919; Special 6, 1920-21 | 2.85 |
| 61 E 3782 | Studebaker light 6, 1919 | 3.30 |
| 61 E 3579 | Studebaker light 6, 1920-21 | 2.85 |
| 61 E 3684 | Studebaker light 6, 1920-21 | 3.30 |
| 61 E 3744 | Velle Models 22, 1916; 28, 1917 | 2.80 |
| 61 E 3746 | Velle Model 38, 1918-19; 39, 1919 | 3.30 |
| 61 E 3686 | Velle Model 48, 1920-21 | 3.30 |
| 61 E 3580 | Velle Model 34, 1920-21 | 3.05 |

Hood Covers Only, Made to Order

Hood Covers not including radiator covers for any make of car not listed above, made of same materials as those listed above will be shipped direct from the factory in Northern Illinois. Allow 10 to 15 days. Allow extra for postage. Ship. wt., abt. 3 lbs.

361 E 3760—Hood Cover only. Dull finish enameled cloth. \$5.20

361 E 3762—Hood Cover only. Imitation leather. 6.90

We will make to order radiator covers for any car not listed above, using same materials as in our regular stock covers. These will be shipped direct from factory in Northern Illinois and will require from 10 to 15 days. When ordering be sure to state make, year and model of car. Allow extra for postage. Average shipping weight, about 3 pounds.

Radiator Covers Made to Order

361 E 3747—Radiator Cover only, dull finish enamel cloth. \$3.70

361 E 3761—Radiator Cover only, imitation leather. \$4.45

Electric Intake Heater

Does away with starting troubles in coldest weather. Just press button on dash. Heats the intake manifold, giving quickly combustible gas mixture that ignites instantly. Uses about same amount of current as the lights. Fits any size pipe. Can be bent for curved pipes. No drilling or tapping—simply clamp around pipe. Complete with wire and switch for attaching to battery. Shipping weight, 8 ounces.

61 E 3670—For 6-volt Battery. \$3.75

61 E 3671—For 12-volt Battery. 3.75

Imperial Primer

Cold weather starting troubles will be practically done away with if your car is equipped with an Imperial Primer. One stroke of the primer in easy reach on the dash board sprays vaporized gasoline into the manifold. You can start without the fuss or delay usually experienced in winter motoring. No priming through pet cocks; no standing in the snow or rain. Do not risk injury to your battery by grinding away for several minutes to start your motor when it is cold. This feature alone is worth many times the price of the outfit. Outfit consists of substantially made plunger pump, all necessary bolts, connections and tubing. 1/4-inch pipe thread. Mention make, year, and model of car, and also if it has vacuum tank.

Ship. wt. 1 1/4 oz.

61 E 3668—For 1/4-inch gas line. \$4.95

61 E 3669—For 1/2-inch gas line. 4.95

Electric Manifold Gasoline Vaporizer

This device is placed in the manifold close to the carburetor. heats up the cold gasoline so it vaporizes instantly in the cylinders—just step on the starter and the engine starts quickly on the coldest mornings. Operated by switch placed in any convenient place. To install drill 1/4 hole—has 3/4-inch standard pipe thread. Operates from 6-volt battery or dry cells. Uses less current than one headlight. Shipping weight, 3 ounces.

61 E 3656— \$2.05

Engine Primer

A great help in cold weather. Highly polished cylinder, 3 3/4 inches long; diameter, 2 inches. Fits on dash. Sufficient pipe to reach manifold enables you to prime from seat. All attachments included. 1/4-inch pipe thread. Shipping weight, 10 ounces.

61 E 3660— \$1.85

Steer Warms

Keep your hands as warm as if you were in the house. A pair of neat, black leather covered grips, length, 5 1/2 inches, that lace onto steering rim in any position. Heated electrically from car's battery, magneto or dry cells. Made for all cars. Style for Fords connected to magneto and operated while engine runs. Require less current than one headlight. Laco and wire up—that's all. Outfit comes complete. Shipping weight, 13 ounces.

61 E 3654—For 6 or 12-volt battery. \$7.85

61 E 3655—For Ford Cars. 5.95

Electric Engine Warmer

Prevents Freezing For use in the Garage

Instead of fussing with stoves—draining water from radiator, etc., to keep the water from freezing over night, just put this heater under the hood with a blanket over the radiator, and in the morning the motor will be ready to start easily. Operates from any 110-volt current, alternating or direct, attaches to lamp socket. As there is no flame it is safe. Size, about 6 1/2 inches by 3 1/2 inches. About 10 feet of cord. Consumes about 2 amperes. Shipping weight, about 1 1/2 pounds.

61 E 3663 \$3.60

Utility Exhaust Heater

Keeps car heated free of cost at a comfortable temperature in the coldest weather. A radiator and foot rest combined. Utilizes hot gases from engine exhaust. Gas is passed through heater when in operation and escapes into air beneath the car. Temperature is regulated by a valve at side of the heater. Gives no obnoxious odors or gases. Quickly installed. Heavily nickel-plated, complete with necessary attachments. In ordering state outside diameter of exhaust pipe before it enters muffler. Shipping weight with protector, about 14 pounds.

461 E 3540—Register type fits in floor board. Has regulator. Size 27x4 1/2 inches. \$22.45

461 E 3651—Round type. Nickel Finish. Size, 28 1/2 x 2 1/2 inches. \$16.45

461 E 3652—Utility Junior Heater for Ford, Maxwell and other small cars. Black Finish. Size, 15x2 1/2 inches. Round style. Shipping weight, 11 pounds. \$7.45

Johnson's Freeze Proof

Prevents freezing in the very coldest weather. Does not evaporate. Absolutely harmless, will not injure rubber, cloth or any kind of metal.

One package protects Fords to 5° below zero. Large cars use two packages to protect to 5° below zero and three packages to protect to 25° below zero. Simply dissolve in water and pour into radiator. Shipping weight, 8 1/2 pounds.

361 E 3657— \$1.35

Per package

Auto Engine Priming Fluid

For use in automobile, truck and tractor motors. Put a few drops of the mixture in your priming cups or primer, turn your motor over and away she goes. No trouble—no fuss. Free from ether, acetone, or kerosene, gun cotton or any harmful substances. Shipping weight, 2 pounds. Put up in 8-ounce cans.

561 E 3662 39c

Alcohol Non-Freeze Solution

Keeps water in auto radiators from freezing. Has no chemical action on iron, copper or brass, and is safe to use. One can protects a 3-gallon radiator to 10 above zero. Tables printed on each label, advise the proper mixture for different temperatures.

Shipping weight, 9 pounds.

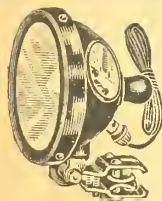
561 E 3661—Gal. also cans. \$1.15

Handy Freezmeter

To test the freezing point of your alcohol non-freezing solution simply take off the radiator cap, insert this handy Freez-meter syringe, press bulb and small marked float inside will register exact freezing point. No need of getting dirty draining solution from bottom of radiator as with old style instruments. Carefully packed. Shipping weight, about 10 ounces.

61 E 3685— 73c

Spotlights and Lamps



Electric Spotlight With Mirror

Universal bracket fits either round or square windshield rods. Swivel joint which may be turned in any direction. Throws a long parallel beam that lights the road for a great distance. The bulb used is a 21 C. P. Nitrogen 6, 12 or 18-volt, and throws a very powerful bright light. An off-and-on connector. Front diameter of lamp, 6 1/2 in. Finished in all black enamel. Works off any 6 or 12-volt battery or Ford Magneto. Ship. wt., 6 lbs.

Makes Driving At Night Much Safer

\$3.25

61 E 6704—For 6-8-volt bat. each. \$3.25
61 E 6705 — For 12-16-volt bat. Each. \$3.35
61 E 6706 — For Ford Magneto 18-24-volt bulb. Price each. \$3.45

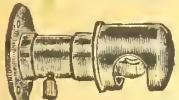


Garage Trouble Lamp

\$1.89

Standard type electric portable 110-volt lamp standard 16 C. P. bulb. Strongly made for garage use. Equipped with a key socket, and 14 feet of cord with screw plug attached. Used with any electric lighting system of 110 to 115 volts. Length over all, 13 in. Shipping weight, 1 1/2 lbs.

61 E 6917—Price, each. \$1.89



Dash Lamp

Both handsome and useful. Gives all light needed for speedometer, clock, or oiling system. Has a self-contained switch and is 2 in. from center of bulb to back of flange. 6-8-volt bulb furnished. Double contact. Ship. wt., 6 oz.

61 E 6904—Price, each. \$55c



Handy Electric Dash Lamp

This small nickel-plated light is easily attached to the metal dash of any car and will give lasting and satisfactory service to its owner. It will illuminate the dash and the entire front flooring of the car. This is a double contact light 2 inches long and furnished with a 6-8 bulb. Ship. wt., 6 oz.

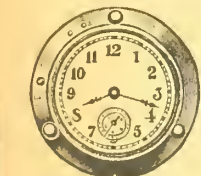
61 E 6860—Double Contact for metal dash. 59c
61 E 6861—Single Contact for metal dash. 59c



Carry-All Outfit

For Packages—Bundles—Suitcases
Here's the handiest carrying outfit we have ever seen. Can be put on or removed from running board in two or three minutes and holds suitcases or packages firmly so they will not injure finish of car. No more banging stuff around in the seats or holding packages when car is full of passengers. Just think of the dozens of times this simple compact outfit will serve you. Farmers will find use for it on practically every trip to town. It looks and is very neat. Adjustable to any length from 10 to 50 inches, so it handles nearly all size bundles. Three thumb screws hold it securely to running board. Size, folded, 11 1/2 x 19 x 2 3/4 in. Ship. wt., about 14 lbs.

61 E 6468—Price, each. \$2.95



Frisco Cowl Clock

A fine appearing, flush fitting cowl clock with reliable one-day movement. Built to withstand jars and vibrations. Slight turn of special catch loosens clock for winding and setting. Nickel finish. Height over all, 3 1/2 in. diameter of dial, 2 1/2 in.; depth, 2 in. Ship. wt., 1 1/2 lbs.

61 E 3554—Price, each. \$3.75



Denver 8-Day Clock

A splendid cowl dash model of very neat appearance as it fits flush with the surface of the dash. Runs eight days with one winding. Has large, clear, easily read figures. Furnished in highly polished nickel finish only. Height, from rim to rim, 3 1/2 in.; diameter of dial, 2 1/2 in.; depth, 2 in. Ship. wt., 2 1/4 lbs.

61 E 3551—Price, each. \$5.70



\$5.40

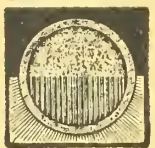
Without Mirror



Spotlight Bracket

Fastens to the body of limousine, sedan or coupe. Spotlight or mirror clamps to the bracket and does not interfere with the raising or lowering of the windshield glass. Finished in black enamel. Ship. wt., 8 ounces.

61 E 6719—Price, each. 39c



Natural Vision Lens

Combine the best scientific principles for road lighting. The bottom half bends the light rays downward, completely flooding the road from side to side. The top half is of the diffusing type, entirely breaking up the glare. At our low prices no car owner should be without these lenses. Ship. wt., per pair, 2 1/2 lbs.

| Article Number | Size, Inches | Article Number | Size, Inches |
|----------------|--------------|----------------|--------------|
| 61 E 6882 | 8 | 61 E 6887 | 9 |
| 61 E 6883 | 8 1/4 | 61 E 6888 | 9 1/4 |
| 61 E 6884 | 8 1/2 | 61 E 6889 | 9 1/2 |
| 61 E 6885 | 8 3/4 | 61 E 6890 | 9 3/4 |

Price, per pair, any size. \$1.15



Inspection Lamp

Operated by Storage Battery
Has polished reflector and protecting wire guard. 10 feet of cord. Furnished only with Edison plug connections. Furnished with 6-8-volt bulb. Ship. wt., 1 lb.

61 E 6901—With 2-point Edison plug. Price complete. \$1.30
61 E 6902—With one-point Edison plug. Price complete. 1.30



Tail Light

Has Ruby semi-phosphor lens; white side light to illuminate number; cut-out plug; 2-candle power 6-volt bulb. Furnished with combination prop; opening fits round or flat iron. Black finish. Two-point contact. Ship. wt., 12 oz.

61 E 6769—Double contact. Price each. 63c
61 E 6723—Single contact each. 63c
61 E 6722—For Fords, with prop. holt. Double Contact. Each. 60c

Silver Ray Spotlight

The very latest innovation in spot lamp construction, which throws a powerful penetrating light. Has heavy convex lens which centers the strong powerful ray of light just where you want it. A three-point contact bracket with an adjustable vertical motion prevents the light from being thrown in the eyes of the approaching motorist. The lamp can easily be detached by a turn of cross bolt with the fingers, making it immediately accessible to any part of the car. Has universal bracket to fit all windshields. Finish is black with nickel rim and bracket, works off any 6 or 12-volt battery or Ford magneto. Complete with wire. We can furnish a neat rear view mirror that attaches to lamp at a small additional cost. Ship. wt., about 5 lbs.

61 E 6724—For 6-8-volt. Price, each without mirror. \$5.40
61 E 6725—For 12-18-volt. Price, each without mirror. 5.45
61 E 6726—For 18-24-volt Ford Magneto. Each, without mirror. 5.40

Rear View Mirror for Silver Ray Spot Light.
Attaches direct to handle of lamp as shown. Diameter 3 1/2 in. Ship. wt., 1 1/2 lb.

61 E 6727—Price, each. 95c

Torpedo Type Electric Headlight

A new distinctive torpedo type headlight of excellent design and finish. Throws a wide and strong beam that lights the road far ahead, making for safe driving. One-piece steel body. Full roll-door hingeless. Has slotted locking device. Clear heavy glass. Heavy silver-plated parabolic reflector. Special adjustable patented focusing device. Dust and waterproof. Two-point connectors and sockets. 15 candle power, 6-volt bulb with two-point connectors. Body finished in black; door in nickel. Front diameter, 10 inches; depth, 6 inches; bracket centers, 8 inches. Ship. wt., per pair, 15 lbs.

61 E 6749—Per pair. \$7.45

We also furnish the above lamp with double or dimmer bulbs, there are two sets of bulbs in each lamp. A large 15 C. P. bulb for country driving and a small 6 C. P. dimmer bulb for city driving. Each lamp controlled separately and independent of the other. Ship. wt., 15 lbs.

61 E 6750—Double bulb headlight, per pair. \$8.65

\$5.40

Per Pair



Challenge

Electric Headlight

An attractive headlight for small cars. Heavy silver-plated parabolic reflector. Adjustable focusing device on outside of lamp. Dust and waterproof. Two-point connectors and sockets. 12 candle power 6-8-volt bulbs. Diameter of front, 9 inches; extreme depth, 5 inches and bracket centers 7 in. apart. Ship. wt., per pair, 9 lbs.

61 E 6760—Black finish with nickel rim. Per pair. \$5.40

\$7.65

Per Pair



Gas Headlight

Made of one piece of steel, stamped out. All parts riveted. Has a short focus, Magnifying mirror, removable door glass. Finished in black enamel. Front diameter, 9 inches; height, 10 inches; depth, 6 1/2 inches; bracket centers, 7 inches. For gas only. Shipping weight, 12 pounds.

61 E 6768—Black finish. Per pair. \$7.65

Windshield Cleaners

Auto-Mayer Visor

Gives you the best kind of protection from sun, headlight glare or rain. Attaches to the top and can be folded out of the way when the top is down. A steel frame, braced in the center, makes the visor rigid. It will not sag, buckle or rattle. Comes in either heavy black rubberized cloth or double thickness green and white awning duck. Only one size, as it is adjustable and can be fitted to any open or closed cars. Ship. wt., 2 lbs.

61 E 9525—Black, price, each. \$2.95
61 E 9526—Green and White Awning Duck, price, each. 2.95

Windshield Mirror

A beautiful new style mirror for either open or closed cars. Adjustable brackets allow mirror to be set at any angle. It has a heavy plate glass mirror with an elegant nickel-plated frame. Length about 12 inches, width about 2 1/4 inches. Be sure to specify if windshield has oval or square top rod or if for closed car. Special fittings for each type. Ship. wt., about 1 1/2 lbs.

61 E 7074—For Open car—Oval top Windshield bar. \$2.25
61 E 7075—For Open car—Square top Windshield bar. 2.25
61 E 7076—For Closed cars. 2.25

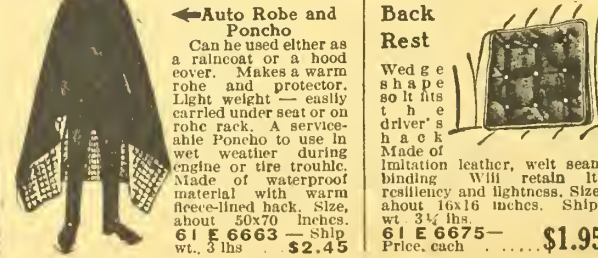
Rives Accelerator Pad

Designed to fit on the accelerator of any car, making it impossible for the foot to slip when feeding the gas. A very convenient accessory that will relieve your foot of tiredness and also save your shoes as it does away with cramping. Made of pressed steel with rubber cushion, and hinge lets it work freely. Ship. wt., 1 1/2 lbs.

61 E 3546—Price, each. \$1.15

A big help in operating the accelerator more steadily. You can hold your foot in proper position without jerking, even on rough roads. Takes strain off of foot and leg muscles as the foot pivots freely at the center instead of throwing weight on the heel. Suitable for all style accelerators, and adjustable in height so you can fit it for comfort. Made of steel. Ship. wt., 12 oz.

61 E 3549—Price, each. 40c



Auto Robe and Poncho

Can be used either as a raincoat or a hood cover. Makes a warm robe and protector. Light weight—easily carried under seat or on robe rack. A serviceable Poncho to use in wet weather during engine or tire trouble. Made of waterproof material with warm fleece-lined back. Size, about 50x70 inches.

61 E 6663—Ship. wt., 3 lbs. \$2.45

Back Rest

Wedge shape so it fits the driver's back. Made of imitation leather, welt seam binding. Will retain its resiliency and lightness. Size about 16x16 inches. Ship. wt. 3 1/4 lbs.

61 E 6675—Price, each. \$1.95

Windshield Cleaner

Don't let rain or snow bother you. This will clean the whole upper part of the windshield by sliding across the entire length, or clean one spot by pivoting in a stationary position. Instantly attached. Will fit all open cars. Finished in black enamel. Ship. wt., 8 oz.

61 E 9519—Price, each. 45c

Clear View

Cleans rain or snow from the windshield and makes driving a pleasure on stormy days. At one stroke of the handle the glass is cleared on both sides, making a clean sweep the entire length of upper glass. Will fit any open car. Installed in two minutes. Ship. wt., 12 oz.

61 E 9518—Price, each. \$1.20

Windshield Wiper

A wonderfully effective complete cleaning outfit that prevents rain, mist and sleet from collecting on the windshield. Just apply special chemical furnished to pad and rub over shield a couple of times—that's all. Rubber cleaner set in edge of pad holder. Ship. wt., about 3 oz.

61 E 9520—Price, complete outfit. 31c

Auto Scope

Washable Wiper
Cleans rain or snow from the windshield and makes driving a pleasure on stormy days. At one stroke of the handle the glass is cleared on both sides, making a clean sweep the entire length of upper glass. Will fit any open car. Installed in two minutes. Ship. wt., 12 oz.

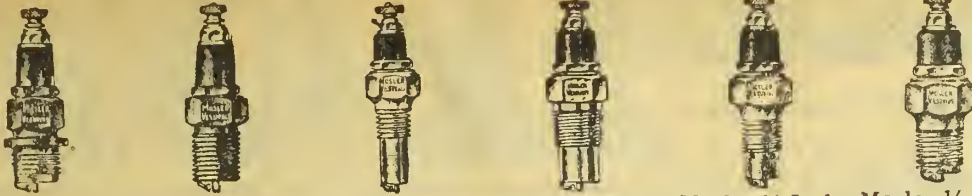
61 E 9518—Price, each. \$1.20

Auto Dust Cover

Made of Heavy Brown Fibre Paper
The finish of many fine cars is ruined by allowing dust to accumulate on the surface and remain even a short time. If finger marks are made through the dust it is nearly impossible to remove them. These Paper Dust Covers are particularly useful when storing cars in Winter or covering them when not in use. Made of extra tough brown fibre paper reinforced to prevent tearing. Completely covers car. Saves it from dust, dirt and moisture. It only takes a few minutes to slip this cover over the car. The great difference it makes in the appearance of the finish makes this a splendid investment. Ship. wt., 5 lbs.

61 E 9504—Size for Ford Touring Cars. Each. \$1.40
61 E 9505—5-passenger Size. Price, each. 1.75
61 E 9506—7-passenger Size. Price, each. 2.30

Mosler Vesuvius Tractor Spark Plugs



- Mosler 7/8 Inch 3. A. E. Tractor Spark Plug**

For Allis Chalmers, Models 18-30; Twin City, Model 12, Model 16; Wallace Cub Junior. Shipping weight, about 8 oz. each.

61 E 9968—Price, each.....\$1.25
- Mosler 1/2 Inch Standard Tractor Spark Plug for Moline Universal**

Absolutely reliable and specially designed for Moline Universal.

Ship. wt., about 8 oz. each.

61 E 9969—Price, each.....\$1.25
- Mosler 1/2 Inch Extra Long Tractor Spark Plug**

Users of the following tractors will find the battle plate a big help in eliminating oil trouble. New Hart-Parr; Steel King; Waterloo Boy. Ship. wt., about 10 oz.

61 E 9953—Price, each.....\$1.25
- Mosler 3/4 Inch Long Tractor Spark Plug**

This is the extension type, particularly suited to the needs of this make tractor. International Harvester, Models Mogul, Models 8-16, Models Titan (All Sizes). Ship. wt., about 10 ounces.

61 E 9952—Price, each.....\$1.25
- Mosler 1/2 Inch Long Tractor Spark Plug**

The long extension on this plug carries the spark into the combustion chamber. Battle plate construction protects insulation against oil and heat. For Fordson; Bull; Clifton; C.O.D.; Farm Horse; Ford Mfg. Co.; Moline (Old Models); Russell Models 30-60, Models 40-80; Gile; U. S. Model B; Whitney; Wichita. Ship. wt., each about 10 ounces.

61 E 9950—Price, each.....\$1.25
- Mosler 1/2 Inch Standard Tractor Spark Plug**

Designed for the following tractors: Aultman, Taylor, Models 18-36, Models 25-50, Models 30-60; Avery, Models 8-16, Models 12-25, Models 18-36, Models 25-50, Models 40-80; Ballor 8 H. P. Bee-man; Best; Buckeye; Burkett; Emerson-Brantingham (All Models); Flour City; La Crosse Leader, 12-18; Twin City, Model 25, Model 40, Model 60. Ship. wt., each about 8 oz.

61 E 9951—Price, each.....\$1.25

Tractor Supplies



Mosler 7/8 Inch Tractor Spark Plug

An entirely successful plug that will satisfy every owner of the tractors listed below. Shipping weight, each 10 ounces.

61 E 9949—Price, each.....\$1.25

- Advance Rumely
All Work
Allis Chalmers
Models 6-12
Atlas
Auto Tiller
Automotive
Avery 5-10
Aultman Taylor 15-30
Baller 12-20
Bullock
Capital
Case
Models 9-18
Models 10-20
Cleveland
Coleman
Common Sense
Dart J
Dill
Eagle
Farmer Boy
- Gehl
Gray
G-O
Huber
Helder
Illinois
Indiana
Lauson
Liberty
Nilson
Parrett
Plow Man
Prairie Dog
Russell
Model Junior
Model Little Boss
Model Big Boss
Samson
Sandusky
Square Turn
Turner
Velle
Wisconsin



Gas and Electric Tractor Lamps

Illustration shows electric truck and tractor search-light. Throws a large powerful white ray of light for a great distance. Can be used successfully to illuminate for night tractor plowing or any other field or road work. Mounted on heavy brackets, permitting the light to be directed in any position, and winged thumb nuts hold it fast. Handle on top. A large screw plate for attaching the lamp securely. Finished in black enamel. Fitted with double contact plug. Diameter, 11 1/4 inches. Over all height, 15 1/2 inches. For 6 volts. Ship. wt., 9 lbs.

61 E 9995—Electric Truck and Tractor Lamp. Black Finish. Price, each.....\$7.15

Gas Lamps

To be used with gas tank or gas generator. Swivels, method of attachment and appearance similar to the electric lamp. Black enamel finish. Diameter of lamp, 10 inches. Total height, 16 inches. Shipping weight, 11 lbs.

61 E 9996—Gas Truck and Tractor Lamp. Price, each.....\$7.20

Tractor Motometers

A motometer is a wonderful help to tractor drivers. This is a special model with big letters and a large tube containing red liquid so that temperature and condition can easily be seen from the seat. Operates like a thermometer and warns before danger occurs to the bearings or cylinders. Height above radiator cap, about 3 1/2 inches. Width, 3 inches. Shipping weight, about 1 1/2 pounds.

61 E 9987—Price, each.....\$8.75

Tractor Lamp with Trouble Light



Throws a wide spread of light just where you need it and directs where to go. Will show up a furrow even better than in daylight. Reflector is fastened in with a special cord making it dust and rattle proof. A trouble lamp in the back with 10 feet of cord is a very convenient added feature. Fine olive drab finish. Comes with 21 C. P. nitrogen bulb for spot lamp and 4 C. P. bulb for rear trouble lamp. Shipping weight, about 10 lbs.

61 E 9999—With 6 volt bulbs. Fender type bracket that can be easily attached to any fender. Each.....\$9.65

61 E 9993—Special to be used with Fordson magneto. Price, each.....\$9.65

Tractor Socket Wrench Set

Here is a special set that probably will do more than anything else to keep your tractor on the job all the time. Hard-to-reach nuts, bolts and cap screws can be adjusted or tightened more quickly, and much more easily when you have this set. You can easily handle the out-of-the-way connecting rod nuts, crank case plate bolts and other places where it is nearly impossible to use ordinary wrenches. Set consists of one nickel-plated ratchet handle; one 12-inch steel handle Stillson pipe wrench; one pair 8-inch drop forged nickel-plated combination pliers; five flat wrenches (10 openings); one cotter pin extractor; one folding screwdriver; one universal joint; one long and one short extension rod; one offset socket wrench handle; one hexagon spark plug socket that fits standard 3/4-inch tractor plugs, and 38 guaranteed pressed steel sockets varying in size from 5/16 to 1 1/2 inches. Ship. wt., about 18 lbs.

61 E 9997—Price, Complete Set, in strong, steel case.....\$13.85



\$13.85

Supplies for Fordsons



Double Duty Timer for Fordsons

Guaranteed for the Life of Your Tractor

\$3.95

Do away with all your timer trouble. This Double Duty Timer made especially for Fordsons is guaranteed to give satisfaction as long as your Fordson Engine lasts. It's of simple common sense construction, contact points genuine Tungsten, made of the finest materials. Its simplicity of operation and mechanical excellence guarantees its value. Use one on your Fordson. Ship. wt., 1 1/2 lbs.

61 E 9648—Price, each.....\$3.95

Wiring Outfits for Fordsons 43c and Up



All wires fitted with terminals and are cut to correct lengths to fit perfectly. Timer wires are enclosed in heavy braided cover and are different in color so it is easy to put them on. Ship. wt. of set 1 pound.

61 E 9988—Complete set 4 spark plug wires and timer wires.....86c

61 E 9989—Timer wires only.....45c

61 E 9990—4 Spark Plug wires, only.....43c



\$1.05

Bethlehem Spark Plug for Fordsons

Now used as standard equipment on Fordson. This Bethlehem Spark Plug is made especially for Fordson Tractors. Ship. weight, 8 ounces.

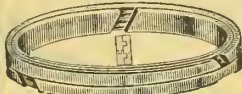
61 E 9879—Price, each.....\$1.05



Cylinder Head Gaskets for Fordsons

Very high grade gaskets made of two sheets of copper with an asbestos center give a compression tight, leak proof joint between head and cylinders. Ship. wt., about 8 ounces.

61 E 9994—Price, each.....83c



Nu-Power 3-Piece Piston Rings for Fordsons

75c

Three piece construction allows this ring to fit perfectly all around, gives better compression—saves oil and gasoline. Size for Fordson 4x1 1/4 in. Ship. wt., 5 oz. each.

61 E 9478—Price, each.....75c



Oil Groove Piston Ring

29c

Oil Sealing Piston Ring for Fordsons. A groove cut near the top of each ring holds a quantity of oil thus forming a film that prevents excessive oil working past pistons. This ring is of the quick seating type. Also gives better compression. Shipping weight, 4 ounces.

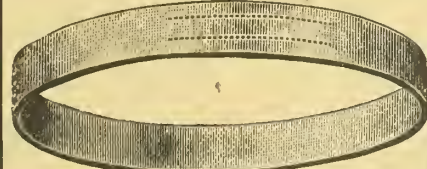
61 E 8993—Price, each.....29c



Step Cut Piston Rings

Regular piston rings made of tough springy metal. Step cut design now adopted as standard by many manufacturers. Ship. wt., about 3 ounces.

61 E 9137—Size 4x1 1/4 inch. Price, each.....14c



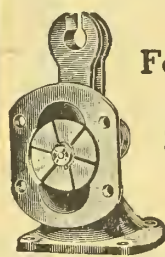
Genuine Oak Tan Leather \$1.25

Leather Fan Belt for Fordsons

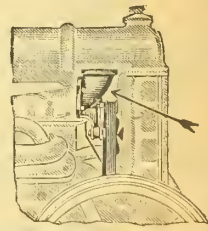
A specially made Genuine Oak Tan Leather Fan Belt for Fordsons. Specially treated so that they are heat, oil and waterproof. Guaranteed to give long satisfactory service. Try one on your Fordson and enjoy the satisfaction of having a genuine leather Fordson Fan Belt. Shipping weight, 10 ounces.

61 E 9693—Price, each.....\$1.25

Sure-Cool Water Circulator for Fordsons



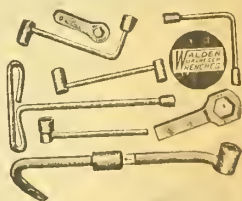
\$16.95



A New Water Circulator for Fordsons. Your Fordson requires a water cooler the same as your car. A successful water cooler that will last as long as the Fordson. It pays for itself in a short time by the savings made on repair bills due to overheating. Keeps water cool under conditions where radiators alone fail. Installation is easy and can be fitted in a few minutes. Ship. wt., 15 lbs.

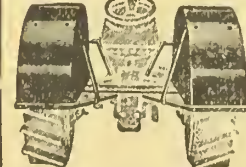
61 E 4077—Price, each.....\$16.95

Walden No. 85 Set for Fordsons



This set will help you more in making easy repairs on your Fordson Tractor than any combination of wrenches we know of. It fits practically every difficult place on the motor, transmission, differential, clutch, radiator, steering or driving mechanism. There's no doubt but that this set will prove one of the very best investments you can make for your Fordson tool equipment. Set consists of 9 special wrenches in wooden box. Size, about 16x9x2 1/2 inches. Ship. wt., about 14 lbs.

61 E 9984—Complete set. Price.....\$7.85



Fenders for Fordsons

Protect the driver against injury from rocks or catching arms, clothes, etc., on the flanges on the wheels. Prevent dust and mud being thrown all over. Braces are heavy so fenders are very rigid and will withstand practically all vibration. A board can be placed across lower braces so driver can stand on it when tired of sitting down. Complete with attachments. Ship. wt., about 135 lbs.

261 E 9991—Price, per pair.....\$18.95
Shipped from Factory in Central Iowa.

Supplies for Ford



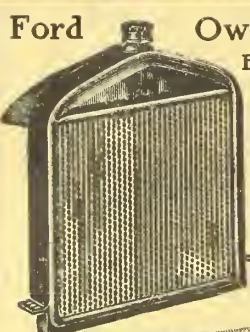
Radiators for Fords Honeycomb Style

A well made radiator of the honeycomb type that will give good service. Our price is considerably less than generally asked for this radiator. Black enamel finish. Shipping weight, about 40 pounds each.

161 E 1940 — For 1917-18-19-20-21 Fords. **\$18.95**
Each.....
161 E 1941 — For 1916 and older models. Shape is similar to the one that came on the car. **\$18.95**
Each.....

\$18.95

Ford Owners Buy This



Improved Strongbuilt Radiator

Keeps the Water Cooler Every Ford owner who wants the very best radiator should buy this one. It is built of the strongest materials. The water capacity is considerably greater than in ordinary radiators and the flow of water is greater due to the extra large water channels, so it will keep your motor cool even on the hottest days.

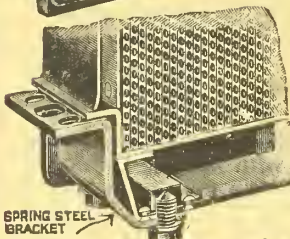
Freezing Will Not Break It

Most radiators for Fords have either a copper or brass core, but the Strongbuilt has a patented flexible core and uses bronze in this construction, so it will stand freezing without breaking. The heavier and stronger tubing and frame of this radiator will withstand the roughest road usage without weakening. Patented shock absorbing brackets positively prevent damage to the radiator when the frame twists or spreads, which is a big money saving feature for Ford owners who drive on country roads. The use of bronze in the core makes it proof against the effects of lime and alkali waters. The large, round holes allow a greater volume of air to pass through the radiator which is also a big aid in keeping the water cooler. Every radiator is thoroughly tested. The finish is black enamel baked on, with a gray core. Shipping weight, about 50 pounds.

161 E 2995 — For 1917-18-19-20-21 Fords. Each..... **\$23.95**
161 E 2999 — For 1916 and older models. This radiator is of similar shape to the one furnished by the Ford Company for the older models. Shipping weight, 45 pounds. Price, each..... **\$23.95**

\$23.95

Large Clean Holes Keep the Water Cooler



SPRING STEEL BRACKET

Radiator Hose for Fords

A new and better construction. All rubber and fabric. No rubber tube to come loose and clog radiator. Average shipping weight, 4 ounces.

61 E 2524 — Lower Hose, 1 1/2 x 10c
2 1/2 inches. Each.....
61 E 2525 — Upper Hose, 2 3/4 x 15c
inches. Each.....

Adjustable Hose Clamp

This new hose clamp fits all Ford inlet and outlet hose connections between radiator and engine. One-half is slotted to accommodate a projection on end of other half, making it possible to adjust the clamp securely. Made of galvanized steel. Shipping weight, 3 ounces.

61 E 9199 — Price, each..... **7c**



Pitter Multiblade Fan for Fords

Positively prevents your Ford from overheating. Draws air from outer ends of blades through every square inch of the radiator surface much more than the old style fan.

A cool, even-working engine saves over-work of motor, oil, repair bills, and gasoline. Easy to install. Shipping weight, 3 pounds.

61 E 2674 — Price, each..... **\$2.60**



Simplex Locks for Fords

This lock has been approved by Underwriters' Laboratories so reduces rates on theft insurance. When locked the steering wheel spins around freely without having any control over the front wheels so a thief cannot drive the car away. You can put this lock on in ten minutes as there is no drilling necessary and the only tools needed are a wrench and screwdriver. Simplex lock simply replaces gear housing under the steering wheel. Shipping weight, about 1 1/2 pounds.

61 E 3496 — Price, each..... **\$3.25**



Double Duty Timer Guaranteed for the Life of Your Motor

An entirely new, improved design timer that gives a sure contact every time. It has a magnetic contact with all points of gentle Tungsten, electrically welded on, they positively will not come off or split and cause short circuit. You never need to oil this timer. The engine starts easier and smoother. The roller used is hardened steel and is mounted on ball bearings. Fits all models. Shipping weight, 1 pound.

61 E 9650 — Price, each..... **\$3.95**

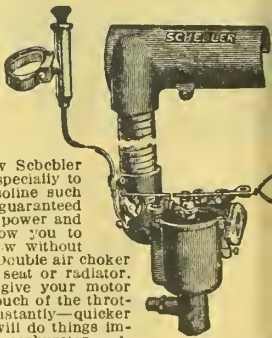


CARBURETORS

Schebler Model A Carburetor for Fords

Here's a brand new Schebler for Fords, designed especially to handle low grade gasoline such as you get now. It is guaranteed to give you maximum power and speed, yet it will allow you to throttle down real slow without missing or skipping. Double air choker can be operated from seat of radiator. This carburetor will give your motor greater flexibility—a touch of the throttle and it responds instantly—quicker pick up. Your Ford will do things impossible with the old carburetor. A big saving in gasoline assured. Complete with exhaust stove, choke, etc. Shipping weight, at 9 1/2 pounds.

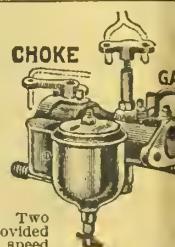
61 E 2157 — Price, complete..... **\$14.**



Nu Power Carburetor for Fords

We have given this Nu-Power carburetor very thorough tests under all kinds of road and weather conditions and are convinced it is by far the best carburetor offered Ford owners near this price. Its big feature is that it admits air in three places instead of only one. This breaks up the gasoline more effectively making it more combustible. Two sources of gasoline supply are provided inside the carburetor—one for low speed and another for high speed so you will be able to throttle down a great deal slower than usual. When driving in high gear the gasoline passes through a fifteen hole jet so it is impossible for large drops of gasoline to pass into the manifold. This produces a strong suction around the spray nozzle, thereby affording a very rich mixture for easy starting in extremely low temperature. Made of the best hardened metal, finely finished. Needs no extra fittings. Perfectly fitted for the Ford T manifold. Shipping weight, 2 1/2 pounds.

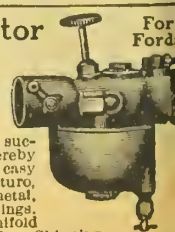
61 E 2171 — Price, each..... **\$9.**



Kingston Carburetor

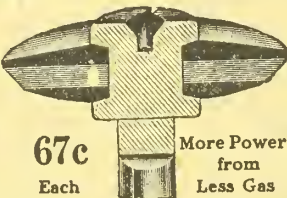
This carburetor is being used at the present time as factory equipment on Ford cars. So constructed that a perfect mixture for all speeds is supplied automatically governed by motor suction. This produces a strong suction around the spray nozzle, thereby affording a very rich mixture for easy starting in extremely low temperature. Made of the best hardened metal, finely finished. Needs no extra fittings. Perfectly fitted for the Ford T manifold. Shipping weight, 3 pounds.

61 E 2153 — Price, each..... **\$5.85**



Flexedge Valves for Fords

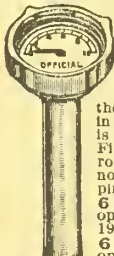
You Don't Have to Grind Them Built Up in Layers



Thousands of Ford owners are getting more power from their cars at less expense for gasoline without valve grinding troubles by using these Flexedge Laminated Valves that are built up by taking many discs of highly tempered steel and pressing them tightly together under tremendous pressure, onto a special steel stem. These valves will not pit or leak as the edges flex slightly when the explosion occurs in the cylinder. This flexing action cleans off carbon particles preventing their sticking on the valve seat and causing loss of power by leakage. Flexedge Valves are self-cleaning, so it is not necessary to keep grinding them. After putting in Flexedge Valves your motor will run slower without jumping or jerking as with ordinary leaky valves. They seal the compression chamber, stopping waste of gasoline, and will quickly save their price by doing away with valve grinding costs. Average shipping weight, 6 ounces.

61 E 2798 — For All Fords, Regular size. Each..... **67c**
61 E 2799 — For All Fords, 1/4 Oversize Stem. Each..... **80c**

Gasoline Gauge



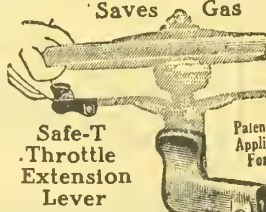
A reliable, easily read gauge that takes the place of the screw cap in the gas tank. Indicator is operated by a float. Fits all touring and roadster models. Will not fit closed models. Shipping weight, 1 pound.

61 E 2161 — For Ford open cars up to 1920. Price, each..... **96c**
61 E 2956 — For Ford open cars 1920 and 1921. Price, each..... **96c**

Carburetor Adjustment Extension

This extension places the carburetor adjustment rod in an easily reached position. For Ford open cars with cowl board. 1917-18-19-20 only. Will not fit closed cars. Shipping weight, 8 ounces.

61 E 2159 — Price, complete..... **89c**

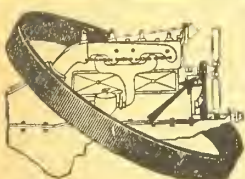


Safe-T Throttle Extension Lever

You never have to take your hands off steering wheel or stretch the fingers. The Safe-T Extension has several times greater touching surface than the regular Ford lever. Fits over regular throttle lever and can be adjusted to any size hand. Makes driving easier and safer, as you always have a tight hold on the steering wheel and both feet on the pedals. We want every Ford owner to buy this Extension Lever and try it 30 days. If you don't feel that this is the best device you ever had for your Ford, send it back and we will return your money. Also great for women and children drivers. Fits all Fords and can be used with any size steering wheel. Made of aluminum. Shipping weight, 3 ounces.

61 E 2177 — Price, each..... **55c**

Motor Supplies



Very Best Quality Leather Fan Belt
Guaranteed for 10,000 Miles of Service

This fan belt is the finest belt for Ford cars that we have ever seen. It is cut from the choicest quality leather, extra width—full 1 1/2 inches wide, or 3/4 of an inch wider than the usual ones for Fords. The special chemical treatment which these belts receive insures their not being affected by heat, oil, friction or moisture. Every one is carefully inspected and tested to insure that quality which makes possible a guarantee of 10,000 miles of perfect service. Use one on your car and enjoy the satisfaction of a 10,000 mile guaranteed Ford fan belt. Shipping weight, about 9 ounces.

61 E 2946 — Fits 1916 and older models. Price, ea. **75c**
61 E 2947 — Fits 1917-18-19-20 models. Each..... **80c**
61 E 2948 — Fits 1921 models only. Each..... **85c**

Fabric Belt

Constructed of strong, tightly woven duck. Treated with a compound which increases friction. Endless type. Shipping weight, 3 ounces.

61 E 2657 — 1916 and older models. Each..... **25c**
61 E 2658 — 1917-18-19-20 models. Each..... **26c**
61 E 2697 — Fits 1921 model only. Each..... **30c**

Detachable Fan Belt

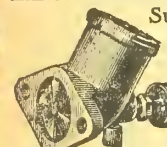
A high-grade leather belt that can be quickly and easily put on or taken off. Has 19-20 m. d. e. action fastener. Ship. wt., 6 oz.

61 E 2668 — 1916 and older models. Price, each..... **21c**
61 E 2669 — Fits 1917-18-19-20 models. Price, each..... **25c**
61 E 2699 — Fits 1921 models only. Price..... **29c**

Sure-Cool Water Circulator

New design circulator that greatly increases water circulation. Fords that would overheat within 4 or 5 miles have with this device been run for 100 miles without a sign of heating even on the hottest days. Overheating ruins engines—stop it with this circulator. Easily attached. Complete with belt. Shipping weight, 2 1/2 pounds.

61 E 2675 — For 1916 models only..... **\$2.15**
61 E 2676 — For 1917-18-19-20 Fords..... **2.15**
61 E 2944 — For 1921 models only..... **2.15**

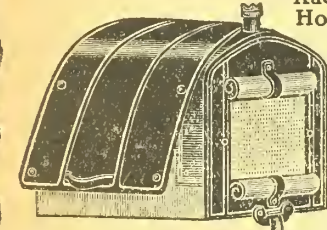


Radiator and Hood Cover

Attached by means of metal clips, and may be easily detached. Made of imitation leather or enamel cloth with heavily lined. Filler hole and handles are reinforced with fabric. Front curtain divides at center and fastens with straps and snaps. Average shipping weight, 3 1/2 pounds.

Enamel Cloth
61 E 2601 — For 1916 and older Models..... **\$3.15**
61 E 2602 — For 1917 to 1921 Models..... **3.65**

Imitation Leather—Dull Finish
61 E 2621 — For 1917 to 1921 Models..... **4.75**



Radiator Cover

Radiator cover only. High-grade black enamel cloth or imitation leather lined with thick material. Front curtain divides at center and fastens with straps and snaps. Average shipping weight, 1 1/2 lbs.

Enamel Cloth
61 E 2603 — For 1916 and older models, each..... **\$1.60**
61 E 2604 — Fits 1917 to 1921 models, each..... **\$1.60**

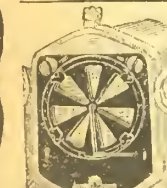
Imitation Leather—Dull Finish
61 E 2623 — 1917 to 1921 models, each..... **\$1.95**



Radiator Shield

A specially made non-metallic shield that fits snugly against the radiator. Can be opened or closed from driver's seat. Will not rattle. A big help in getting more mileage from gasoline in winter. It also acts as a radiator cover. Easily attached with fasteners furnished. Shipping weight, 2 pounds.

61 E 2352 — Price, ea. **\$1.50**



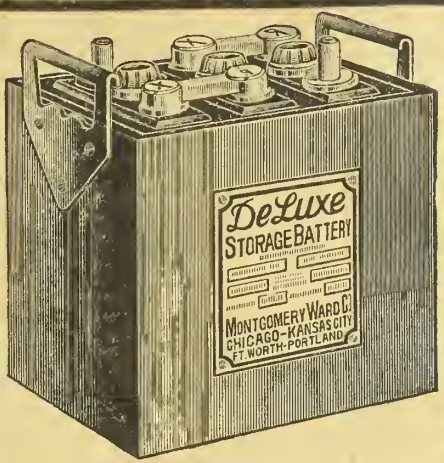
Start Here

K. W. Coils for Fords

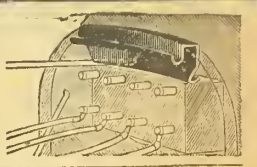
genuine K. W. Coils are interchangeable with all coils used on cars for years 1913 to 1920. Hardening, irregular ignition and lack of power often due to weak coils. Troubles of this kind are easily corrected by replacing with a new coil unit. Shipping weight, each, 1 lb. 12 oz. **E 2126—\$2.05** each.

De Luxe Batteries for Fords
For Starting and Lighting

YOU can quickly prove the big saving we offer on starting batteries by comparing our price with that of any other high quality battery. Every De Luxe Battery is absolutely guaranteed to be made of first quality materials and you are fully protected against any defects. This kind of a guarantee means a lot to you on batteries, for you have to depend on the word of the firm to know you are getting the best—you see only the outside and most batteries look alike. Study over the construction of De Luxe Batteries as shown by the cross section and description on page 776 of this Catalog. De Luxe Batteries for Fords are built of the same fine grade materials as used in the De Luxe Batteries for the most expensive cars. Every profit and expense that is saved by eliminating the handling through jobbers, etc., go to you in better quality and at lower prices. The terminals are specially designed to fit the cables you have. **Shipped from Factory in Chicago.** Average shipping weight, about 55 pounds.

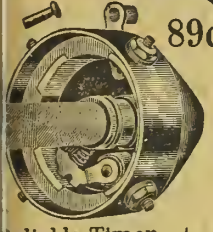


Coil Protector for Fords
This coil protector prevents the water from seeping in between cowl and dash. Protects coil box from becoming short-circuited through water running down on the terminals, or soaking back of the coil box. Made of thin sheet steel. Easy to install. Fits all 1917-18-19-20-21 models. Shipping weight, about 6 oz. **61 E 2582—Price, each \$58c**



Coil Protector Strip
Many Fords give lots of trouble when it rains, due to water leaking through to the coils, making the engine miss and sometimes causing hours of delay. This Coil Protector, made of special composition, fits between the cowl and dashboard. Ship. wt., 10 oz. **61 E 2619—Price, each .26c**

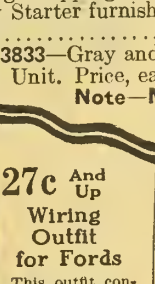
Reliable Timer
The roller and contact points are specially hardened for long wear. The insulation prevents short circuits. Oil is located at top proper lubricates roller. Fits all Fords 1913 to 1920. Shipping weight, 1 lb. 12 oz. **E 2133—Price, each .89c**



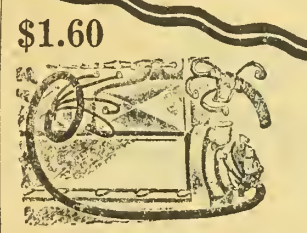
Parts for Coils Used on Fords

Plotted points on coil parts often cause the engine to miss. These coil parts are made of the best spring steel and are pointed with full size points of Tungsten. One pair in envelope. Ford's numbers are 4733 and 4734. Shipping weight, per pair, 3 ounces. **61 E 2100—Parts for Coils, per pair .17c**

Wiring Outfit for Fords
This outfit consists of high-grade wire, both primary and secondary, cut to correct lengths, and complete terminals. Well insulated where exposed to grease or oil. Furnished in contrasting colors, for easily replacing in proper position. Ship. wts., complete sets 1 lb., 8 oz. **61 E 2108—For Fords previous to 1916. Set Complete with Spark Plug wires .75c**
61 E 2109—For 1916-17-18-19 Fords. Set Complete with Spark Plug wires .82c
61 E 2110—Spark Plug wires only .27c
61 E 2112—Lighting and Timer wires only for 1916-17-18-19 models .55c
61 E 2136—For Fords equipped with electric starter—6 wire outfit, complete with Spark Plug wires .95c
61 E 2135—Set of 6 Timer and Lighting Wires only .69c



Protected Timer Wires
Flexible steel casing over the timer wires prevents short circuiting due to becoming oil or water-soaked. The casing is bolted up close to the Timer which prevents the wire wearing out from rubbing. Wires are all cut to exact length. The ends of the wires that attach to the Timer as well as the ends of the metal casing are all protected by a heavy rubber covering insuring long life. Shipping weight, 1 pound. **61 E 2127—Price, complete, with primary and headlight wires for 1913 to 1920 models .160**



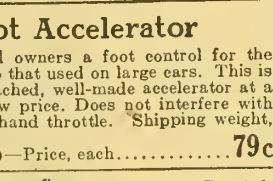
WILMO Manifold
Tests before prominent auto associations have shown over 35 per cent more mileage per gallon. A hot dividing wall between the exhaust and intake gases gives a more explosive mixture. It is simple, neat, compact, has no moving or wearing parts—no adjustments; can be put on with just an ordinary monkey wrench. Ford engines which now choke, cough and buck for several blocks before running right will perform perfectly in a moment's time. In its Fords which would stall when run slow in high gear have been able to creep along in high gear at walking pace without a jerk or utter. Shipping weight, 12 pounds. **61 E 2156—Price, each for Fords, \$7.15**



Carburetor Choke Holder
This Carburetor Choke Holder is made only for Fords which are equipped with self starters. Practically every other car on the market is equipped with a carburetor choke holder. It enables the driver to regulate the mixture of gas and air in the carburetor from the seat and holds it just where you want it. This inexpensive little device is a time and gas saver. Easily attached in 15 minutes without drilling any holes. Shipping weight, 4 ounces. **61 E 2954—Price each .48c**



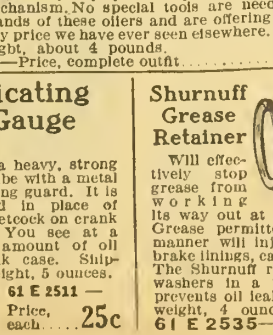
Foot Accelerator
Gives Ford owners a foot control for the gas similar to that used on large cars. This is an easily attached, well-made accelerator at a startlingly low price. Does not interfere with operation of hand throttle. Shipping weight, 1 pound. **61 E 2509—Price, each .79c**



Strong Sight Feed Oiler for Fords
You can always tell if you have enough oil by glancing at the indicator on the dash. When oil level gets below petcock, no oil will show in glass indicator. Burned out bearings—scored pistons and cylinder walls—overheating—ruined crank shafts are the results when your oil runs low. This system is very simple and absolutely positive in action as the oil is forced by a pump operated by special tools are needed to install. We bought several thousands of these oilers and are offering you the complete outfit way below any price we have ever seen elsewhere. Instructions furnished. Shipping weight, about 4 pounds. **61 E 2532—Price, complete outfit .175**



Lubricating Oil Gauge
Has a heavy, strong glass tube with a metal protecting guard. It is attached in place of lower petcock on crank case. You see at a glance amount of oil in crank case. Shipping weight, 5 ounces. **61 E 2511—Price, each .25c**

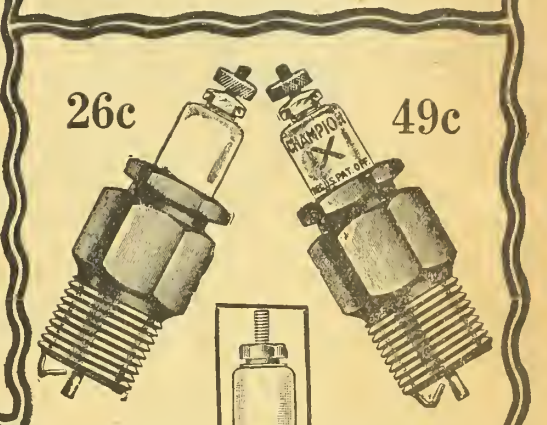


Shurnuff Grease Retainer
Will effectively stop grease from working its way out at the ends of rear axles. Grease permitted to leak out in this manner will injure tires and flood the brake linings, causing the brakes to slip. The Shurnuff retainer contains special washers in a light-fitting sleeve that prevents oil leaking through. Shipping weight, 4 ounces. **61 E 2535—Price, each .76c**

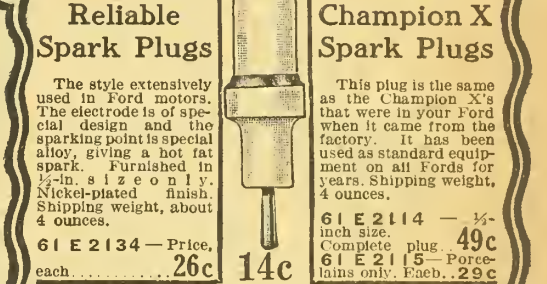


Ignition Supplies

Reliable Spark Plugs
The style extensively used in Ford motors. The electrode is of special design and the sparking point is special alloy, giving a hot fat spark. Furnished in 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. Shipping weight, about 4 ounces. **61 E 2134—Price, each .26c**



Champion X Spark Plugs
This plug is the same as the Champion X's that were in your Ford when it came from the factory. It has been used as standard equipment on all Fords for years. Shipping weight, 4 ounces. **61 E 2114—1/2-inch size. Complete plug .49c**
61 E 2115—Porcelain only. Each .29c



Extra Porcelains to Fit Champion X Shells
Highly efficient porcelains. They fit Champion X and Reliable Shells perfectly. Complete with gaskets and electrode. Carefully packed. Shipping weight, each, 2 ounces. **61 E 2130—Price, each .14**
61 E 2131—Price of 6 .78
61 E 2132—Price of 12 .1.18

Spark Plug Wrench for Champion X's
Made of malleable iron, finished with baked black enamel. One end fits Champion X plug, Reliable, Champion, etc., other end fits Standard 3/4-inch spark plugs. Shipping weight 12 ounces. **61 E 2116—Each .26c**

Compression Whistle for Fords
An excellently constructed loud tone whistle with a special attachment for 3/4-inch spark plugs, making it suitable for Fords. The great difference between its tone and ordinary horns makes it a wonderful aid in preventing accidents. Furnished complete with cord and attachment to fit in Ford spark plug hole—plug fits in attachment as shown. Shipping weight, about 2 pounds. **61 E 3445—Price, each .270**



Magneto Horn
For use with Ford Magneto. Gives a strong, even, clear tone. Special bracket included. Black enamel finish. Shipping weight, 3 lbs. **61 E 1955—Price, complete .225**



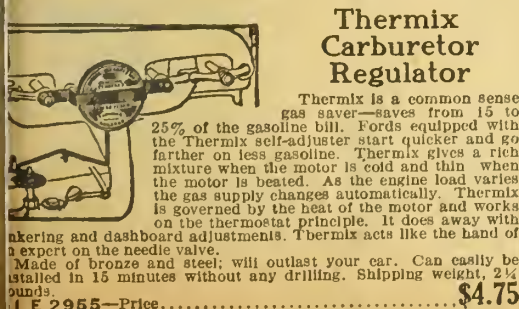
Muffler Cut-Out
Strong, extra heavy and serviceable cut-out, much better than type generally used on Ford cars. Simply cut a V-shaped hole in the exhaust pipe and attach with special clamps furnished. Cut-out is made of strong casting. It is a great aid in testing a motor and enables the motor to do heavier work. A coil spring holds the cut-out closed when not in use so that there is no noise from the explosions. Shipping weight, 3 pounds. **61 E 2959—Price, complete outfit .123**

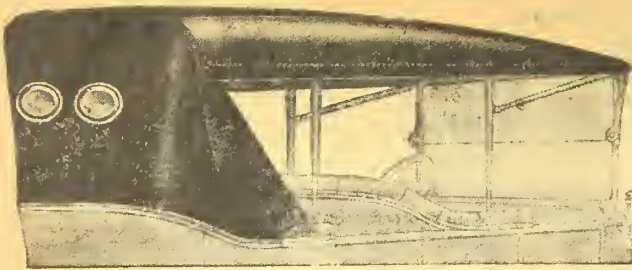


Hand Controlled Gas Saver with Priming Cup
The mixer screws into the manifold as illustrated. Equipped with timing cup which is a big help in cold weather starting. A shaft runs from the mixer to control lever, which is attached to steering post. Air lever works in reach of the fingers regulates the air supply to four cylinders and sprays air into the manifold which heats up the gasoline and gives your motor a better mixture. You will be amazed at the increase of speed. 1/4-inch pipe thread. Nickel plated. Shipping weight, 8 ounces. **61 E 2150—Price, complete outfit .185**



Thermix Carburetor Regulator
Thermix is a common sense gas saver—saves from 15 to 25% of the gasoline bill. Fords equipped with the Thermix self-adjuster start quicker and go farther on less gasoline. Thermix gives a rich mixture when the motor is cold and thin when the motor is heated. As the engine load varies the gas supply changes automatically. Thermix is governed by the heat of the motor and works on the thermostat principle. It does away with the thermostat adjustments. Thermix acts like the hand of an expert on the needle valve. Made of bronze and steel; will outlast your car. Can easily be installed in 15 minutes without any drilling. Shipping weight, 2 1/2 pounds. **61 E 2965—Price .475**





Top Re-covering Outfit With Gypsy Curtain

Made of 32-ounce Rubber Cloth material similar to the original equipment on your Ford. The cover slips over regular top frame. Furnished with rear curtain having two oval beveled plate glass lights and gypsy side curtain as illustrated. Fits all Ford touring cars 1915 to 1921. Will greatly improve the looks of your old Ford. Shipping weight, 15½ pounds.

561 E 2736—Complete..... \$11.45



Top Re-covering Outfits for Fords Make Old Tops Look New for About 1/3 the Price of a New Top

This outfit replaces worn out Ford tops. If your top has become shabby in appearance, or worn and leaky, this Re-cover Outfit will both restore its appearance and give you a top as good as new at about one-third the price of a complete top. Consists of a heavy black rubber cloth roof, back curtain with all parts stitched and ready to slip over the Ford Tour-

ing Car or Roadster top frames. All fasteners and trimmings are furnished so any car owner can quickly and easily attach same. All that is necessary is to remove the tacks at the front and rear and take off the old top covering and back curtain. This outfit is cut to fit perfectly. Furnished for Roadster or Touring car models.

Re-cover Outfits with Three Celluloid Lights

Touring Models. Shipping Weight, 11 Lbs.

| Article No. | Year | Price |
|-------------|------------------------|--------|
| 561 E 2746 | 1913-14 | \$7.45 |
| 561 E 2747 | 1915-16-17-18-19-20-21 | \$7.45 |

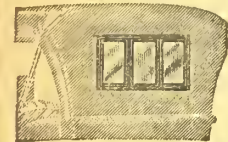
561 E 2775—Cotton Mohair Re-cover Outfit for Touring Cars only. With 3 celluloid light, 1915, 1916, 1917, 1918, 1919, 1920, 1921. Complete..... \$11.20

Rubber Cloth Re-cover Outfit with Two Beveled Plate Glass Windows

561 E 2740—For Ford Roadsters, 1915-16-17-18-19-20-21. Complete..... \$7.40

561 E 2741—For Ford Touring, 1915-16-17-18-19-20-21. Complete..... \$8.65

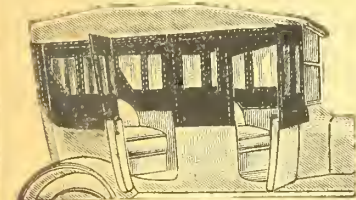
Shipping Weights, 9 and 13 lbs.



Three in One Curtain Lights for Fords

Often the three rear lights and part of the curtain become damaged so repairing is hard. This complete section with celluloid lights sewed in will repair the worst kind of tears. Attached by small cleats. Size, about 24x12 inches. Shipping weight, about 12 ounces. Fits all Ford Roadster or Touring Models.

561 E 2782—Complete..... 73c



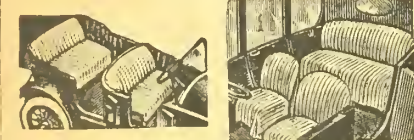
Door Opening Side Curtains \$9.45 and Up

Curtains open and close with door. Does away with fastening every time some one gets in and out of car. Curtains always rigid and stay in place. No rattles. Outfit comes complete with all side and door curtains, door rods and fasteners. Curtains and rods easily removed when not needed. Made of regular curtain material (rubberized fabric). Large clear celluloid windows. Fits all models 1915 to 1921. Shipping weight, 16 and 10 pounds.

561 E 2727—Touring Model. Complete outfit..... \$16.45

561 E 2728—Roadster Model. Complete outfit..... 9.45

Slip Over Seat Covers for All Fords



Durable washable fabric materials with neat stripe pattern. Keep clothes clean and protect the cushions. Can be put on by anybody able to drive a tack. Special tacks furnished with button heads so button holes in covers slip right over them. Once on, the covers can be taken off or put on in five minutes.

61 E 2233—Slip Over Seat Cover for all Roadster models. Shipping weight, 2½ pounds.

Each..... \$3.15

61 E 2234—Slip Over Seat Covers for both seats of all Touring Models. Shipping weight, 4½ pounds. Per pair..... \$6.35

61 E 2235—Slip Over Covers for 3 seats in all Ford Sedans. Shipping weight, 5 pounds. Per set of three..... \$7.95

61 E 2236—Slip Over Seat Cover for all Ford Coupes. Shipping weight, 2½ pounds. Each..... \$3.65

Seat Covers for Fords \$6.95 and Up



These covers completely change the appearance of the Ford seats—instead of a lot of leather rolls you have a car that is clean, classy, comfortable and pleasant-looking inside. They are easy to keep clean as you can remove them quickly and wash them with soap and water. Splendidly made of a very high-grade double texture, olive color Mackintosh cloth, waterproof, bound and stitched. All seams reinforced with heavy fabric material. Arm rests are of patent leather. Outfit consists of a set of covers for seats, backs, armrests and doors. Top Dust Hoods are same material as seat covers. Either set can be easily and quickly fitted, as we furnish complete instructions, together with all necessary snap buttons and screw heads. State model desired. Shipping weight, Seat Covers, Touring, 12 pounds; Roadster, 6 pounds; Dust Hoods, 3 pounds.

Seat and Door Covers (Only)

| | |
|--|---------|
| 61 E 2722—Touring 1913-19-20-21..... | \$12.25 |
| 61 E 2723—Touring 1917..... | 12.25 |
| 61 E 2724—Touring 1915-16..... | 12.25 |
| 61 E 2725—Touring 1914..... | 12.25 |
| 61 E 2726—Roadster 1917-18-19-20-21..... | 6.95 |
| 61 E 2727—Roadster 1915-16..... | 6.95 |

Top Dust Hood (Only)

| | |
|---|--------|
| 61 E 2733—Touring 1915-16-17-18-19-20-21. Price, each..... | \$4.40 |
| 61 E 2739—Roadster 1915-16-17-18-19-20-21. Price, each..... | \$4.25 |

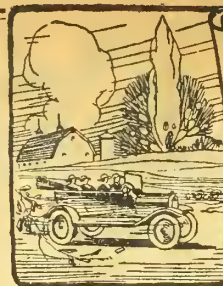


Anti-Draft Shield

An inexpensive necessity for comfort. Closes space between windshield and top of car. Fits snugly over front edge of top, and keeps out rain and snow. Made of heavy rubber coated auto cloth. Complete with fastenings. Shipping weight, 6 ounces.

61 E 2613—..... 40c

Don't Pay More Than Riverside Prices for Tires



Set of 3 Glass Lights for Ford Rear Curtains

Glass lights that will outlast several sets of celluloid windows—make the rear look better—protect against wind and give you a clear view backwards. Each glass is set in metal sashes which are attached to the curtain with small screws. Will not sag or tear curtain. Fit all Ford curtains having three lights. You can put them on with an ordinary screw driver. Furnished complete ready to attach. Shipping weight, about 3 pounds.

61 E 2716—Set of 3..... \$1.45



Rear Curtains

Fitted with three celluloid lights. Will fit any Ford Touring Models, 1915 to 1921. Match the regular Ford top. Complete with all necessary fittings. Shipping weight, about 3 pounds.

561 E 2774—Rubber Curtain..... \$2.48

561 E 2776—Cotton Mohair Curtain..... \$3.35



Back Curtains with Beveled Plate Glass Windows

Complete rubber back curtains to fit all models of Ford Touring Cars from 1915 to 1921. Made of high grade rubber material to match Ford tops and furnished ready to be attached to your car. Fitted with two oval plate glass windows which will greatly improve the appearance of your Ford. Shipping weight, about 4 pounds.

61 E 2773—Price, each..... \$4.10



Windshield Rubber

A slotted rubber which fits between top and lower glass on the windshield of all Ford cars. Keeps out rain and snow. Shipping weight, 11 ounces.

61 E 2616—Each..... 28c



Comfort Heater for Fords

An entirely new design heater that will furnish sufficient heat to keep you very comfortable in the coldest weather. Made of metal so it fits over the exhaust pipe and beneath the floor board of all models. It carries the heat to the pedal openings so it is not necessary to cut or alter the boards. Exhaust pipe fits in opening in the heater so you do not have to cut the pipe or drill holes. Screwdriver only tool needed. A regulator varies the temperature. No gases, odor or noise from the exhaust. Shipping weight, about 4½ pounds.

61 E 3589—Price, complete..... \$1.95



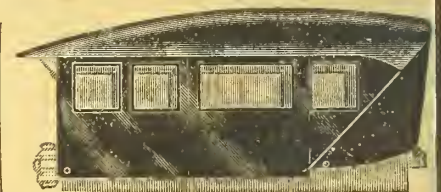
Hot Spot Generator Manifold Heater

On cold mornings you can use this Hot Spot Generator Manifold Heater to start the motor quicker at 10 below zero than you would in summer without the generator. Can be used nearly a hundred times for a penny. Attached in a couple of minutes. Heats the intake manifold so the engine starts almost instantly and will keep running without sputtering and jumping. Will last for years. Shipping weight, 6 ounces.

61 E 2942—Price, complete outfit..... 68c

Ford

Make Your Ford Better Looking and More Comfortable



Beautiful One Man Top for Fords

A big improvement over the old style tops, as it does away with unsightly bows that are always in the way. There is probably no one necessity that you can put on which will dress up your car as much as this outfit. Easily and quickly raised by one person, without leaving the car. Top is lined with high grade waterproof cloth. Strongly reinforced with bows. Will hold its shape permanently under all weather conditions. Equipment similar to that of expensive cars. No rattling. Quickly attached curtains are furnished with top and carried in pockets fastened to upper bows. Furnished for Touring Cars only. Shipping weight, 125 pounds. Cannot be sent by mail.

161 E 2726—Rubberized Fabric material with gypsy curtains as illustrated, the style used on expensive cars. Top furnished complete with side curtains. The rear curtain has two 5x7 heveled plate glass windows. Fits all 1915 to 1921 models. Price, complete outfit..... \$37.45

161 E 2770—Heavy Rubber Cloth Top with side curtains and three celluloid rear windows. This top does not have the gypsy side curtains as shown in the illustration. Material is similar to that used in regular Ford Tops. Fits all 1915 to 1921 Ford Touring Cars. Price, complete outfit..... \$33.65

161 E 2721—Heavy Rubber Cloth Top with side curtains and two beveled plate glass lights. This top is not furnished with the gypsy side curtain. Will fit all 1915 to 1921 Ford Touring Cars. Complete outfit..... \$35.45

61 E 2722—Dust Hood to fit 161 E 2726..... 3.85

61 E 2723—Dust Hood to fit 161 E 2770 and 161 E 2721..... 3.65

Shipping weight of Dust Hoods, about 2½ pounds.

Side Curtains for Fords

These curtains are made of excellent material and fit perfectly. The workmanship on these curtains is of the very best. The celluloid windows are double sewed with a strong thread. Furnished complete with eyelets for attaching to your car. For Ford Touring Car Models only. Shipping weight, 3 pounds.

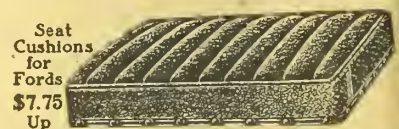
561 E 2710—Fits 1915-16-17-18-19-20-21 Right Front..... \$2.85

561 E 2711—Fits 1915-16-17-18-19-20-21 Left Front..... 2.85

561 E 2712—Fits 1915-16-17-18-19-20-21 Right Rear..... 3.15

561 E 2713—Fits 1915-16-17-18-19-20-21 Left Rear..... 3.15

561 E 2777—Fits 1915-16-17-18-19-20-21 Touring Cars. Shipping weight, 6 pounds. Complete set of four..... \$13.35



Seat Cushions for Fords

Excellent constructed seat cushions that will stand hard service yet hold their shape. If your cushions are lopsided and uncomfortable buy these comfort bringers that will make every trip more enjoyable. Covered with imitation leather. Fits Fords 1913 to 1921. Shipping weight, either front or rear, about 18 lbs.

161 E 2739—Rear Seat Cushion, Each..... \$8.25

161 E 2739—Front Seat Cushion for Touring, also fits Roadster, Each..... \$7.75

Shipping weight, 9 ounces.

61 E 2606—Price, for both mats..... 42c

Exhaust Heater \$3.25

Designed to attach easily to exhaust. No up keep cost. Nothing to get out of order. Regulator may be closed in warm days. Shipping weight, 4½ pounds.

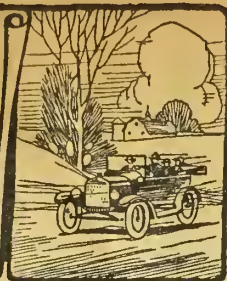
61 E 3650—Price..... \$3.25

Engine Primer

A great help in cold weather. Highly polished cylinder, 3½ inches long diameter 2 inches. Fits on dash. Sufficient pipe to reach manifold enables you to prime from seat. All attachments included. ¾-inch pipe thread. Shipping weight, 10 ounces.

61 E 3660—Price, each..... \$1.85

Owners Make Your Ford Smoother Riding at a Low Price



\$18.50 Set of 4

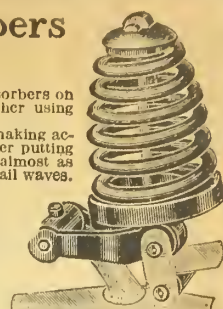
Apco Shock Absorbers for Fords

Guaranteed to be the easiest riding shock absorbers on the market. The only direct suspension absorber using conical springs.

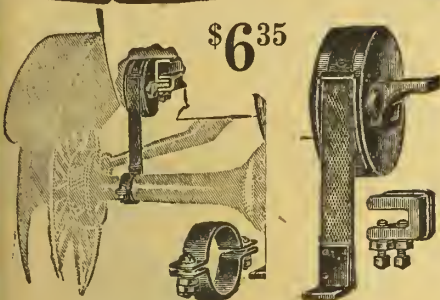
One of the finest comfort bringing, pleasure making accessories we have ever offered Ford owners. After putting on these Apcos you can ride over rough roads almost as evenly and as smoothly as a boat glides over small waves.

It is like putting your Ford body on cushions. These large, easy, smooth acting conical shaped springs flex freely when your wheels hit even the smallest bumps so that the shock is cushioned and stopped before it ever has a chance to jolt you. Ride all day long without having a tired feeling. When you see bumps ahead you will not have to brace your feet or grab the wheel. Side swaying and rebounding which ordinarily causes the body to bounce and jolt upward is practically eliminated, which lessens repairs on the car and adds mileage to the tires. Apcos are made of the finest materials, completely assembled so you can put them on. Instructions furnished. Shipping weight, about 20 pounds.

461 E 2423—Set of 4, for Roadsters and Coupes.....\$18.50
461 E 2422—Set of 4, for Touring Cars.....18.50
461 E 2424—Set of 4, for Sedans.....18.50



\$6.35

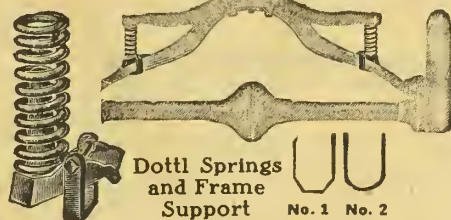


Velvet Shock Preventer for Fords

Bouncing of the body so noticeable with Fords on account of their spring construction will be practically eliminated. This will have a remarkable effect on the increase in mileage from your tires. Cross walks, railroad crossings, culverts and other bumps of this kind which usually throw the passengers out of the seat can be driven over at a fair rate of speed without hardly being noticed. Spring breakage when using Velvets is practically unknown. The upward movement of the body is gradually held and controlled by the Velvets, preventing excessive widening of the springs and rebounding which causes most spring breakage. Put on Velvets so you can ride in the back seat without bumping your head against the top.

A set of Velvets on the back of your Ford will enable you to ride even over rough roads without being jarred about in the seat. Very easy to attach. Not necessary to take off wheels or make alterations. Fit all Ford cars. Shipping weight, 11 pounds.

461 E 2415—Price, per pair.....\$6.35



Dotti Springs and Frame Support No. 1 No. 2

Make Your Ford Able to Hold a Ton

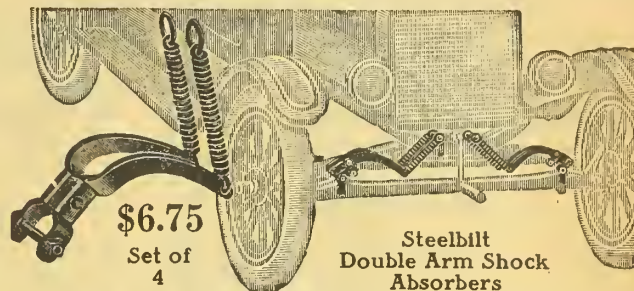
Dotti supports increase the capacity of the Ford rear system 50 per cent by distributing the weight of the load to three points instead of one. A regular Ford roadster or touring car chassis can be converted so it will safely carry 2,000 pounds. You can readily see this carries the weight more evenly to both rear wheels in the same manner that a load carried on both shoulders would be less noticed than if all weight was thrown on one. A broken spring or rear axle repair would cost you more than a pair of Dotti's, besides time wasted for repairing. Can be installed in 30 minutes. Two types furnished. Order according to shape of end of spring leaves as shown in illustrations, number 1 and number 2. Shipping weight, about 6½ pounds.

61 E 2921—For Number 1 Shape Spring leaves.

Price per pair.....\$4.95

61 E 2936—For Number 2 Shape Spring leaves.

Price, per pair.....4.95



\$6.75

Set of 4

Steelbilt Double Arm Shock Absorbers

You'll never know the full amount of pleasure you can get from your Ford until you put on shock absorbers. These Improved Steelbilt Absorbers are stronger, smoother riding, and far better in every way than any of this type ever sold before. New patented features allow the easy acting coil springs to open farther and more freely than any others ever could, so you can ride over the roughest roads without being jolted around. Your Ford will hold the road better and steer easier—the tires will last longer and repair bills will be less for the soft, easy, smooth action of these eight coil springs prevents even the little bumps shocking the car and passengers. Special fastenings prevent the springs from coming loose. Improved drop-forged steel perches absolutely prevent springs hitting the brake drums. We know these absorbers are so much better than any cantilever style you've seen or tried that we want you to prove every word we've said by purchasing a set and using them on your car for 2 months—60 full days. If you are not fully satisfied, send them back and we will return your money and all transportation charges you paid. You can put on these absorbers as there are no holes of any kind to drill. Shipping weight, set of four, 18 pounds.

461 E 2419—For Touring Cars, set of four.....\$6.75

461 E 2420—For Roadsters, set of four.....6.75

461 E 2421—For Ford Coupes and Sedans.....6.75

Price set of four.....6.75



Wheel and Demountable Rim Outfit for Fords

Equip your Ford with demountable rims. It brings it up to date and greatly adds to the convenience when changing tires. They are constructed of well seasoned hickory, primed and painted. Outfit consists of five 30x3½ demountable clincher rims, four wood wheels, rim wrench and bolts for attaching to your hubs. Furnished in either black or natural wood. Shipping weight, about 135 pounds.

264 E 1974—Black finish, Complete.....\$23.75

261 E 1975—Natural finish, Complete.....23.75

Shipped direct from Factory in Central Michigan

Jiffy Change Demountable Wheel Outfits for Fords

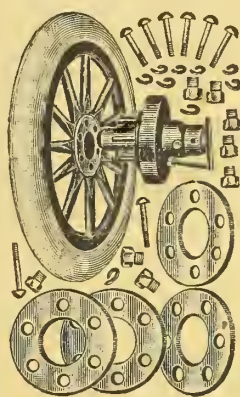
Makes the 4 wheels now on your car quick demountable and the extra wheel furnished makes it possible to carry a fully inflated tire. No machine work required in making the present equipment demountable. To change wheels simply remove the bolts and slip the wheel off over the hub. The outfit consists of one 30x3½ wheel with five extra flanges, 24 bolts with nuts and lock washers. The wheel is interchangeable and works perfectly in front or rear. Shipping weight, complete outfit, about 40 pounds. Cannot be sent by mail.

161 E 2260—Complete.....\$11.45

outfit. Price.....

Above outfit complete without the wheel. Shipping weight, about 9 pounds.

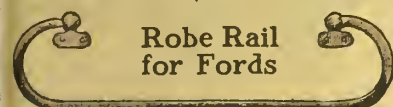
61 E 2249—Price, of outfit without wheel.....\$6.25



Leatherette Robe Rail

One of the neatest, best looking robe rails we have ever seen for Fords. Leatherette cross piece, length 28 inches and finely polished brackets. Will not mar car's finish or make any noise. Shipping weight, about 1 pound.

61 E 1970—Price, each.....69c



Robe Rail for Fords

Will hold one large robe or several dusters. Made of rod iron, black enameled. Width, 3¼ inches; length 28 inches. Shipping weight 2 pounds.

61 E 1962—Price, each.....43c

Cocoa Rugs for Fords

A thick heavy cocoa mat for the rear of touring cars. Much better looking than rubber mats. The entire edge is heavily bound. Will give long service. Measures 21x28 inches. Can be used in other cars where the size is suitable. Shipping weight, 2 pounds.

61 E 2940—Price, each.....\$2.65

Use Riverside Tires



61E2279 61E2280

Mats for Fords

Good quality rubber composition with heavy fabric foundation. Shipping weight, 3½ pounds.

61 E 2279—For 1914 and older cars.....95c

Price, each.....

61 E 2280—For 1915-16-17-18-19-21 models.....95c

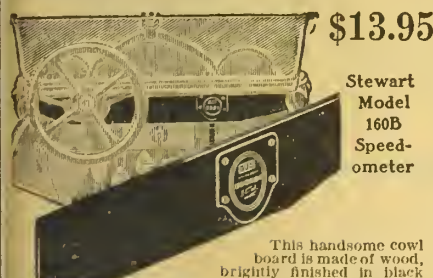
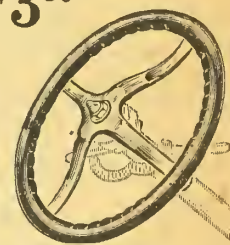
Price, each.....95c

Oversize Steering Wheel \$3.30

Aluminum Spider

17-inch size. Makes steering and driving easier and safer. Greater leverage and better grip makes this a big improvement over the small regular wheel. We have never known a Ford driver to change back to the small wheel once he used this 17-inch size. Fits all Fords perfectly. Walnut finished corrugated rim with heavy aluminum spider. Shipping weight, about 3½ pounds.

61 E 2073—Price, each.....\$3.30



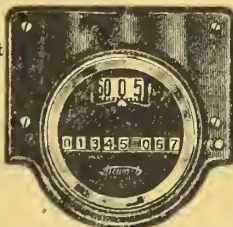
\$13.95

Stewart Model 160B Speedometer

This handsome cowl board is made of wood, brightly finished in black enamel—fitted with a neat flange which holds the speedometer in place. Speedometer is of the Stewart magnetic type—Indicates speed up to sixty miles per hour. Quickly put on without alterations. For 1916-17-18-19 Roadster and Touring Cars. Furnished complete with Speedometer, Cowl Board and driving equipment. Shipping weight, 14 pounds.

461 E 2198—Price, each.....\$13.95

Stewart Speedometer Model 160-A For Fords



Has a special flange for all models, which has instrument or cowl board furnished complete with all regular Stewart equipment including flexible shaft and swivel joint. Has a rotating speed dial (60-mile capacity), a 10,000 mile Season Register and a 100-mile Trip Register. Black enamel-finish. Diameter, 3¾ inches depth, 2¾ inches. Shipping weight, about 11 pounds.

61 E 2197—Price, each.....\$12.95

Running Board Mats

Made of long fibre closely woven together so it keeps its shape and will wear a long time. Saves cleaning floor mats all the time. Quickly attached by steel clips. Size, 8¼x13 inches. Shipping weight, 2 pounds.

61 E 2281—Price, each.....75c



Complete Speedometer Shafts

Complete with end fittings to fit Stewart and other Speedometers and are entirely interchangeable. Shipping weight, about 4 pounds.

61 E 2208—Stewart, 50-inch.....\$1.95

61 E 2209—Stewart, 54-inch.....1.95

61 E 2210—Stewart, 60-inch.....2.10

61 E 2211—Stewart, 66-inch.....2.25

61 E 2212—Stewart, 72-inch.....2.35

61 E 2213—Standard and Sears Cross also Jones, 1915 Ford Equipment, 54-inch.....\$1.75

61 E 2214—For Standard and Sears Cross Speedometers, all models, 60-inch.....\$1.75

61 E 2215—For Standard and Sears Cross Speedometers, all models, 66-inch.....\$1.75



Warner Wheel Tilt for Fords

Making your regular Ford steering wheel into a tilting wheel by using this simple, inexpensive tilting device. No more squirming and wiggling around to get into or out of the driver's seat as the wheel is completely out of the way. Driver does not need to have person sitting next, move to get out. Wheel is solid when in driving position. Light pull on catch releases for tilting. Women like it. Can be put on in a few minutes. Needed on all Fords—open or closed models. Shipping weight, about 1½ pounds.

61 E 2448—Price, each.....\$1.35

Speedometer Swivel Joints

An improved swivel joint made of fine quality material. All gears are carefully fitted. Perfectly interchangeable with parts of various speedometers. Shipping weight, 1¼ pounds.

Right hand drive means for right wheel as you look at it from drivers seat.

61 E 2205—For Stewart Speedometers, 2¼ to 1, 1911 to 1921 right hand drive wheel.....\$1.85

Price, each.....

61 E 2206—For Stewart Speedometers, 2¼ to 1, 1911 to 1921 left hand drive wheel.....\$1.85

Price, each.....



See Quick Cowl Board for Fords

Notice the real expensive cars and you will see the speedometer, clock and electric lamps are placed in an easy, readable position. Place them similarly on your Ford by using this cowl board. Guaranteed to fit perfectly—no holes to drill—can be installed by any driver. Will fit all open car cowl dash models. Will not fit closed models. Clock or speedometer not furnished. Shipping weight, 2 pounds.

61 E 2203—Price, each.....75c



Make your tires go farther by using our reliners

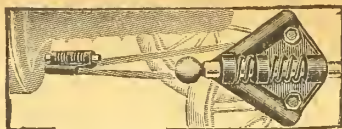


**Rigid
Rear
Axle
Brace**

55c

Braces the Ford rear axles so as to prevent sagging. Keeps the differential gears in perfect alignment, which lessens wear on the gears and often helps to eliminate that grinding noise. This not only saves repair bills, but makes driving more enjoyable. Consists of rod and two black enameled clamps which fasten to rear axle near hubs. Fits all Ford models with standard 56-inch tread. Ship. wt., 3 lbs.

461 E 2518—Price, each..... 55c



**Radius Rod
Shock Absorbing
Cushion for
Fords**

A device that practically will do away with all bent radius rod and broken crank case troubles. When you hit a bump the spring absorbs the shock, thus preventing the strain bending the radius rod. Bent radius rods are very dangerous and are the cause of many serious accidents, as they tip the front axle and often throw the front wheels out of control. Old style radius rods do not "give" so every jolt is carried direct to the engine which in time causes crystallization and breakage. Using this device has the same effect on your motor, radius rod and steering parts as shock absorbers have in making your car easier riding. This cushion fits all models and can be put on easily. Ship. wt., 3 1/2 lbs.

61 E 2941—Price, each..... \$4.75

Necessities Prices That



**Single
Bar
Body
Brace for Fords**



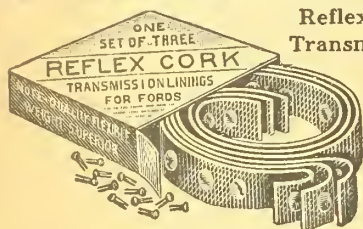
Ford running boards become loose and wobbly but this can be remedied by using this brace. It holds up the steps, braces the fenders and stops the rattling. You'll notice the big difference as soon as you step on the running boards—they feel solid. Brace consists of angle steel cross piece with two short pieces of board to put beneath metal step. Has adjustable clamps. Ship. wt., about 13 lbs.

461 E 2347—Price, each..... \$1

**Running Board and
Fender Support**

Stops all sagging even under heavy weight. Prevents rattling, vibrating and breaking of running boards and fenders. Makes it safe to put battery, tool box or tire holder on running boards. Outfit consists of two strong metal arms which have clamp that fastens direct to the frame of the car, the lower part fits under running board and is held by bolts which fit holes now in the board. No holes to drill. Ship. wt., per pair, a 12 1/2 lbs.

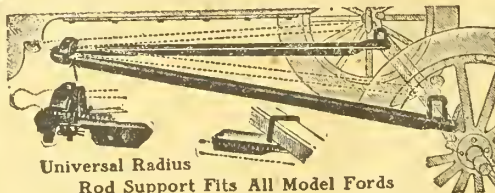
61 E 2349—Price, per pair..... \$2



**Reflex Cork
Transmission
Lining
for
Fords**

The cork holds securely, but does not cause grabbing, jerking or chattering when starting or stopping, as usually happens with ordinary linings which glaze and char in a short time. The cushioning effect of the cork discs reduces wear on the fabric in the lining and lessens the strain on the engine, transmission and rear axle. The smooth, velvety action of this lining is very noticeable, as it is treated with mica, the best known heat-resisting lubricant. No loss of power through slipping as the discs of cork take hold gradually but firmly. Each set complete with brass rivets. Ship. wt., about 1 1/2 lbs.

61 E 2443—Price, set of three..... \$2.18



**Universal Radius
Rod Support Fits All Model Fords**

Here is a real radius rod support made of heavy gauge angle iron. Will not break or bend. Every detail thoroughly worked out. Will fit all model Fords. Strengthens and braces front, preventing vibration of the front axle. Makes steering easier. Prevents bending of regular radius rods which often causes serious accidents. Study the illustration above—it shows exactly how it is attached. Do not confuse this with ordinary auxiliary radius rods—it is entirely different. Ship. wt., about 6 lbs.

461 E 4078—Price, each..... \$1.15



**Trans-
mission
Lining**

Excellent quality linings composed almost wholly of long fiber material thoroughly impregnated with a compound which makes it practically impervious to the action of oil, grease or heat. There is no wire used in its construction so there is no possibility of short-circuiting the magneto. Furnished in sets of three packed in box. Rivets furnished. Ship. wt., about 3 lbs.

61 E 2468—Price, set of three..... 55c

**Stronghold Brakes for
Ford Rear Wheels**



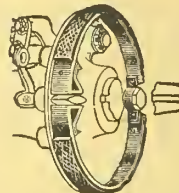
\$11.90

No Jerking

or jerking when you stop with Stronghold Brakes. Operated by foot pedal—no more adjusting transmission brake bands. No rods to rattle—connected with 3/8-inch steel cable. Can be installed in about an hour—no holes to drill—lined with a high quality brake lining. Special steel cable equalizes braking force to each wheel. Do not interfere with shock absorbers. Ship. wt., about 12 lbs.

461 E 1927—Price, complete outfit..... \$11.90

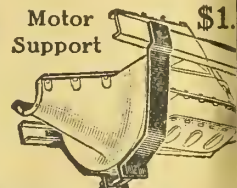
**Pressed
Steel
Brake
Shoes
Pair**



Exceptionally strong and unbreakable, saving you shoe replacement cost. Lined with high quality brake band lining. Prevents grabbing—but will lock wheels if necessary. Lining quickly replaced when worn. One-piece shoe. Best steel. Fits all Fords 1909-1921. Ship. wt., per pair, about 4 lbs.

61 E 2512—Price, per pr. \$1.35

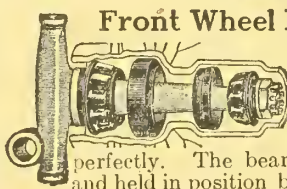
**Motor
Support**



Prevents broken crank case which always is expensive means delay. Also braces motor run smoother. Hard bumps, etc., will not break with this support. Not necessary to remove motor. You can put it on or off in about 4 lbs.

61 E 2348—Price, each..... \$1

Front Wheel Roller Bearings



The bearings shown here are of the roller type used so extensively. Will fit Ford or Chevrolet 490 front wheels and spindles perfectly. The bearings are of tapered pattern and held in position by the small projections in the retainer. Set includes bearings and retaining sleeves for both front wheels. Ship. wt., 3 lbs.

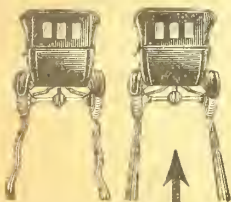
61 E 2269—Price, per set..... \$5.90

\$1.55

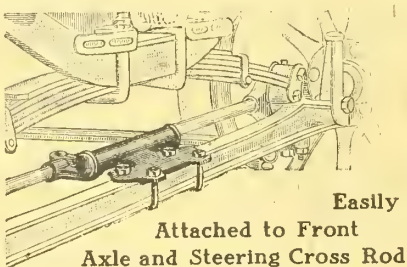
**Ball Thrust
Bearings
For Fords and Chevrolet**

Keeps the gears together. Has a number of small hardened balls that keep the gears from wearing even after thousands of miles. Will fit perfectly either the Ford or Chevrolet 490, taking place of the usual plain washers. Ship. 1 lb.

61 E 2477—Price, complete.... \$1



**Safety Pilot for
Fords makes
Driving Easier**

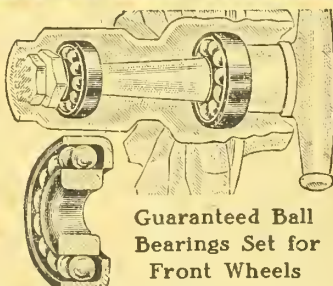


**Easily
Attached to Front
Axle and Steering Cross Rod
Prevents Many
Accidents**

\$2.10

Thousands of Ford owners have found this Safety Pilot a wonderful driving aid as it holds the front wheels in a straight line. Saves tires by keeping them running straight. An enclosed spring gives a tension on the steering connections that eliminates constant wobbling of the wheels when traveling over rough roads, thus taking the strain off the driver's arms. Even though you take your hands off the steering wheel the car will keep traveling straight. In case you hit a bump the Safety Pilot automatically brings the wheels back into line. Made of malleable iron with a high-grade spring so it will give long service. Ship. wt., about 5 lbs.

61 E 2287—Price, each..... \$2.10



**Guaranteed Ball
Bearings Set for
Front Wheels**

generally do with the balls separated. Shipping weight, about 1 pound.

61 E 2238—Price, complete set for both front wheels..... \$2.65

**Front Wheel
Bearings
Guaranteed for
10,000 miles**

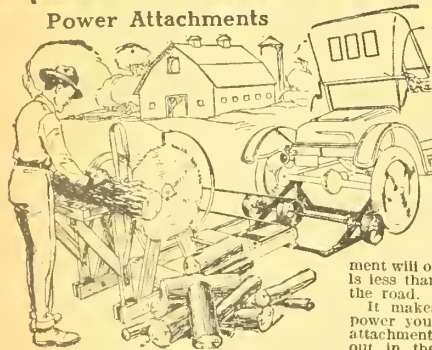
For Ford and Chevrolet 490 front wheels. Complete with specially made cups, cones and highest grade balls. The construction of the cones is such that the bearings cannot separate causing balls to work out and break. Even if the cones and bearings separate, due to loose adjustments, the bearings are held by the cups so they will not break or chip as they generally do with the balls separated. Shipping weight, about 1 pound.

**Dorr Miller
Gearless
Differential**

Gives a positive drive to both rear wheels—all the advantages of a solid axle in straightaway drive. Over soft or uneven ground, it is delivered only to the wheel with traction. Pulls through bad where ordinary gear differential is hopelessly stalled. Comes complete, ready to install. Uses no Ford driving gears. Shipping weight, 20 lbs.

61 E 2463—For Fords, \$16
61 E 2464—Chevrolet, \$16
No. 490..... 16

Power Attachments



**Power
From Your Ford
For All Kinds of Work**

Here's a simple convenient power attachment that can be slipped under the rear wheels of your Ford in less than two minutes and will deliver power for grinding feed, pumping water, sawing wood, running a hay press, or grindstone, or any machine that can be operated by an 8 H. P. gas engine. Made entirely of iron and steel. This power attachment will outlast your Ford. The wear on the tires is less than one-fifth what the wear would be on the road.

It makes no difference, where you need the power you always have it handy. Just put this attachment on your running board and take it out in the field, up to the house, or to your cost in a very short time. Saw and belt-ing not included.

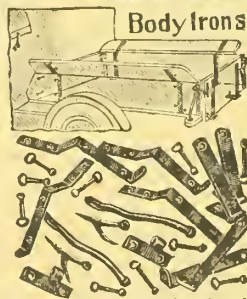
Shipping weight, about 175 pounds.

261 E 5441—Price, \$19.95

complete..... \$19.95

Shipped from Factory in Central Ind.

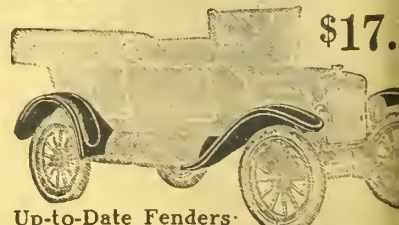
Body Irons



**Make
Your
Own
Truck
Body**

Complete assortment of fittings that are carefully designed and are made from high-grade materials only. Each assortment contains gate books and eyes, hinges, inside and outside rear braces, flare irons, etc., so that you can make a good substantial body. Directions and plans furnished show size and number of boards needed and how to assemble them. For Roadsters only. Ship. wt., 8 lbs.

61 E 1973—Price of outfit..... \$5.70



Up-to-Date Fenders

Give your Ford the graceful, flowing, stylish lines and rounded arch that you generally see only on big-priced cars. These fenders are made of best 20-gauge automobile steel drawn and finished in high gloss enamel, thoroughly baked at high temperature. Their design not only insures the beauty but also imparts great strength and rigidity, long life with the regular Ford fenders on Model T Ford roadsters and touring cars. Will not fit the Ford Sedan or any car with 60-inch tread. Ship. wt., about 115 lbs.

61 E 2253—Set of 4, fits 1909-16 Fords. \$1

Complete Outfit..... \$1

61 E 2271—Set of 4, fits 1917-18-19-20-21 models. Complete Outfit..... \$1

For Fords You Can't Beat

Hand-Tire Tool

An entirely new design tire tool that will be a big help to every car owner as it can be used on either clincher or straight side tires. To remove tire, at end, which is similar to ordinary tire for putting on the tire, place tool in shown, then the pressure on end forces on the rim. Positively will not injure tire or tube. Tool is drop forged steel and stands hardest usage. This price is far below than generally asked for ordinary clinching weight, about 3 pounds. 53c

Light Car Jack

A light-weight, easy acting jack. Exceptionally strong. Height, 10 inches. Has a lift of 6 1/2 inches. Long removable handle. Shipping weight, 5 pounds. 61 E 1908—\$1.35 Price, each

89c

Double Socket Offset Wrench

Black Hawk triple socket offset wrench. Socket sizes 1 1/8-inch, and 1 1/4 inches. De-or heavy duty. Used on taft pinion, front spring bolt and nut, radius rod hub lock, rear spring idle arm and body. Average shipping weight, 4 pounds. 434—89c

Connecting Rod Wrench

Fits all Ford connecting rods, including the fourth one, which is located out of reach of ordinary wrenches. Owner should be without it to save your laying up the shipping weight, 1 pound. 138—28c

Speed Wrenches

Black Hawk hexagon socket wrenches as speed tools in assembling and repairing cars. These tools are big time doing the work in one third time needed. Average shipping weight, pounds.

- 1/2-inch size. Price, each... 76c
- 3/4-inch size. Price, each... 76c
- 1 1/4-inch size. Price, each... 76c
- 1 3/4-inch size. Price, each... 76c

Oil and Grease Guns

Nozzles, 1 1/2 x 9 inches. Capacity, 6 ounces. Finished in brush brass. Shipping weight, 1 pound. 317—Each 37c

Little Sioux Valve Grinding Set for Fords

With Instructions

Complete outfit for putting in valves in the very best manner. This is a set used by expert repairmen, but can be successfully by all Ford owners. A finely illustrated book is included in the set, showing you exactly what to do to finish. Use this outfit occasionally and your car will run better, use less gas and oil, and you far better service in every way. Consists of the Special Valve Grinder, Grinding Tool, Valve Seat Reamer, spring valve while grinding and valve grinding; also the instruction book. Shipping weight, 5 pounds. 550—Price of outfit... \$5.85

Valve Grinding Set

90c

Valve grinder; spring compressor holds at a time, two tubes valve grinding compound and coarse; wrench socket for cylinder and push rod gauge. Packed in box. Weight, 1 pound. 551—Complete set 90c

Adamson Gasoline Vulcanizer

For repairing all Ford size inner tubes. Gives a thoroughly vulcanized patch. Light, compact and handy, requiring no cement or acid—merely repair instructions. Shipping weight, 1 1/2 pounds. 61 E 1805—Price, each... 90c

Tire Saving Jacks for Fords

24.5

Here's a money saving outfit that will mean the adding of many miles to tires for Fords and other light cars.

These jacks are light, yet powerful. They are especially easy to work. Made of steel. Shipping weight, set of four, 15 pounds. 461 E 1907—\$2.45 Set of 4....

Tee Handle Wrenches

48c

Black Hawk, Hexagon socket, 3/4-inch used on brake and reverse support, brake shoe support, cylinder inlet and outlet connections, cylinder head, drive shaft roller bearings, front and rear spring tie, running board, fender, and controller shaft bracket nuts.

61 E 2432—Price, each... 48c

Black Hawk, Hexagon socket, 3/4-inch, used on ball and socket joint, clutch release fork clamp, commutator case support, crank case arm, engine bolts, cylinder cover, cylinder valve cover, fan adjustment, front radius rod ball, inlet and exhaust clamp, muffler bracket, radiator and transmission cover. 61 E 2433—Price, each... 48c Shipping weight, each, about 1 1/2 pounds.

Handy Wheel Puller

45c

Valve Lifter

35c

Handy Valve Grinder

27c

Silent Valve Adjusters

21c

Valve Refacer

34c

It trims valve to exactly the right angle and cleans off pitted parts so valve seats tight. Blade made of tool steel. Ship. wt., 6 ounces. 61 E 2561—Price, each... 34c

Strapless Running Board Tire Holder

Safe, convenient, lasting. Has no unsightly straps, chains or cables to break or wear out. No loose parts to rattle or get lost. To remove tire, simply unlock the padlock, lift up on the tire and it is free. Made of steel throughout. Has no brittle cast parts. No drilling body; Shipping weights, 61 E 1925, 4 pounds, 61 E 1926, 5 pounds. Padlock not furnished. 61 E 1925—For one tire. Each \$1.35 61 E 1926—For two tires. Each 2.35

Drop Forged Wrenches

22.25

Black Hawk Wrenches for Fords

33.35

Mechanics' Special Assortment

1.19

Combination Bushing Reamer

1.20

Foot Brake Reverse and Spark Plug Wrench

80c

Valve Reseater

67c

Tire and Demountable Rim Holder

4.95 and up

Running Board Tool Box

1.95

Battery Box for Fords

1.89

Hard Service Socket Wrenches

2.45

Wrench Set for Fords

1.25

Connecting Rod and Bushing

1.18

Babbitting Jig for Ford Connecting Rods

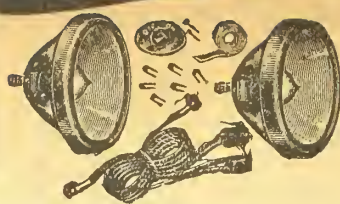
89c

Quick Seating Oil Groove Piston Rings for Fords

27c

Nu-Power 3-Piece Piston Rings

65c



Parts for Ford Lamps

For 1915 to 1921 models. Doors complete with glass. Black enameled rims. Shipping weights, shown below.

| | | |
|-----------|--|-----|
| 61 E 2003 | Headlight door, 2 pounds. Each. | 49c |
| 61 E 2028 | Headlight door, black and nickel, 2 lbs. Each. | 95c |
| 61 E 2004 | Sidelight door, 10 ounces. Each. | 43c |
| 61 E 2005 | Tail light door, 10 ounces. Each. | 38c |
| 61 E 2012 | Oil fount complete with burner, 14 oz. Each. | 38c |
| 61 E 2025 | Headlight reflector. Highly polished, silver-plated, 1 1/2 pounds. Each. | 75c |

Brite-Lite Plugs for Fords

Fits in right headlight socket. Doubles volume of light operated by magneto at all speeds. Keeps one light lit if other goes out. Will not fit starter models. Will fit all models previous to 1920. Ship. wt., 3 oz.

| | | |
|-----------|--------------|-----|
| 61 E 2056 | Price, each. | 48c |
|-----------|--------------|-----|

Electric Side Lamps

Neat and classy looking. Stamped from one piece metal, richly enameled in lustrous black. Clear lens. Two lamps. Front diameter, 5 inches. Complete with Edison connections and 4 C. P. bulbs. Fits only late 1915 to 1919 Ford models. 6-8 volt bulbs furnished. Shipping weight, 3 pounds.

| | | |
|------------------|-------------------------|--------|
| 61 E 2019 | Black with Nickel Door. | |
| Price, per pair. | | \$3.25 |

Regulite Switch

When connected with headlights and magneto it maintains a constant current regardless of engine speed. Prevents burning out of lamps by sudden rise of voltage, at high speed. Has three steps so that it can be adapted to Ford Magnetos of any strength. Hard rubber finish. Ship. wt., 1 lb.

| | | |
|-----------|--------------|--------|
| 61 E 2051 | Price, each. | \$1.48 |
|-----------|--------------|--------|

Natural Vision Lenses

\$1.15

The bottom half bends the light rays downward, completing flooding the road with a strong light. The top half is of the diffusing type, entirely breaking up the glare. Fits all Ford lamps. Shipping weight, per pair, 2 pounds.

| | | |
|-----------|------------------|--------|
| 61 E 6883 | Price, per pair. | \$1.15 |
|-----------|------------------|--------|

Spotlight Regulator

For 1916 to 1919 Fords. Transforms current supplied by magneto so you use regular 6-volt bulb. Regardless of engine speed you have a strong, steady bright light. Shipping weight, 4 ounces.

| | | |
|-----------|--------------|-----|
| 61 E 2050 | Price, each. | 69c |
|-----------|--------------|-----|

Electric Head Light



A high class head lamp. Heavy French roll door, diameter 9 inches. Parabola reflectors, highly silver-plated with adjustable focusing device. 15 C. P. 9-volt bulbs. Edison connections. Fits late 1915-21 Ford models. Ship. wt., 10 pounds per pair.

| | | |
|-----------|---------------|--------|
| 61 E 2016 | All Black. | |
| Per pair. | | \$4.85 |
| 61 E 2027 | One Lamp 2.50 | |

Electric Tail Light



Ruby semaphores lens; white side light. 2 C. P. 6-volt bulb. Black finish. Ship. wt., 12 ounces.

| | | |
|---|---|-----|
| 61 E 2022 | For Fords with Prop Bolt. | |
| 6-volt double contact bulb, 1915-19 cars. | Price, each. | 60c |
| 61 E 2026 | 6-volt single contact bulb for 1920-21 models only. | 60c |

Electric Head Light Outfit

An elegantly finished Bullet shaped outfit. One piece extra heavy gauge metal, enameled black. Parabola shape reflectors highly silver-plated and have adjustable focusing device. Edison connections and sockets used throughout. Genuine Tungsten bulbs, 9 volt. Includes two 9-inch headlights, as illustrated. Fits the Ford two arm brackets without altering. Complete wiring assembly for operation from Ford magneto. Shipping weight, 10 pounds.

| | | |
|-----------|-------------------|--------|
| 61 E 2001 | All Black finish. | \$5.40 |
|-----------|-------------------|--------|

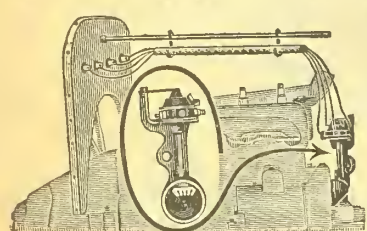
Electric Tail Light Outfit



Operates from magneto when running—uses two dry cells when idle. One 3-volt bulb does the work as the transformer takes care of difference in voltage. Gives steady, clear light. Outfit includes transformer, tail light, switch and coil of wire. Dry cells not included. Shipping weight, 1 1/2 pounds.

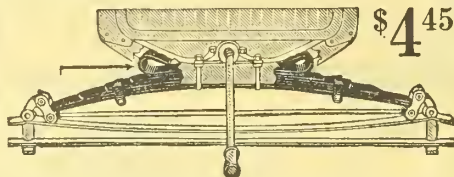
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| 61 E 2049 | Price, complete outfit. | \$2.95 |
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Always Clean Ignition Outfit



Outfit consists of timer, distributor and overhead wiring set. The timer is excellently designed with a case that will last as long as your Ford. The distributor shaft takes the timer out of the grease, oil and dirt, so the wires are always clean and away from the fan belt. Overhead wires are surrounded by braided covering that is held by the radiator brace rod. They can not rub against the fan belt which generally causes lots of trouble. Gears and all necessary parts furnished. Elevator shaft is bolted direct to the motor. This outfit is such a great improvement over the old, dirty, messy, troublesome timer with its greasy wires that you'll always be glad you bought it. Shipping weight, 4 1/4 pounds.

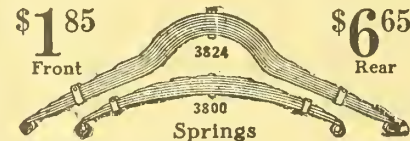
| | | |
|-----------|------------------|--------|
| 61 E 5014 | Complete outfit. | \$8.85 |
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Kant Break Front Spring for Fords

Here is a new spring, one that every Ford owner will appreciate as it prevents the front end bouncing up and down. Note the special curl arrangement or rebound feature on the first leaf—this prevents the spring from going down to the breaking point. Guaranteed not to break. Saves car, engine, and front axle when going over rough roads and bad bumps. Shipping weight, 21 lbs.

| | | |
|------------|--------|--------|
| 461 E 2968 | Price. | \$4.45 |
|------------|--------|--------|



| Article Number | Part No. | Name of Part | Price |
|----------------|----------|-------------------------|--------|
| 461 E 2907 | 3800 | Front Spring, complete. | \$1.85 |
| 461 E 2908 | 3824 | Rear Spring, complete. | 6.65 |

Ship. wt., 461 E 2907, 19 lbs.; 461 E 2908, 50 lbs.

Spring Shackle With Oilers

Perfect fitting Shackles carefully heat treated. Will wear and give perfect satisfaction. Furnished complete as illustrated. Shipping weight, each, 8 oz.

| | | |
|-----------|----------------------------------|-----|
| 61 E 2966 | Front Shackle. Complete shackle. | 79c |
| 61 E 2967 | Rear Shackle. Complete shackle. | 79c |

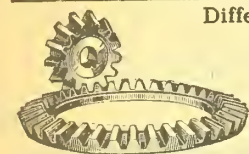


Felt Washers and Gaskets for Fords

Complete set of washers and felt gaskets for the Ford car. The set includes two each of numbers 2510B, 2809, 3111, 3377 and 3451; one each of 2580, 3070, 3071, 3102, 3379, 3363 short, 3363 long, 3544, 3279 and 3012. Shipping weight, 6 ounces.

| | | |
|-----------|-----------------|-----|
| 61 E 2566 | Price, per set. | 40c |
|-----------|-----------------|-----|

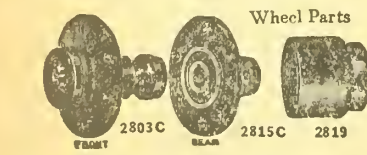
Differential Gears



Special ratio differential ring gear and drive pinion for the Ford. The 3-1 ratio gears are suitable for country roads, city driving and where conditions permit 55 miles or more per hour. 4 to 1 gears are for truck use, requiring power and low speed. Also to be used on mountain and sandy roads. Gears are changeable with present gears. Changed quickly. Made of nickel gear steel. Ship. wt., 3 1/2 lbs.

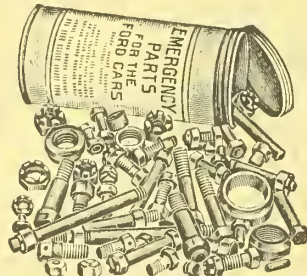
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| 61 E 2467 | 3 to 1. Per set of two. | \$8.25 |
| 61 E 2478 | 4 to 1. Per set of two. | 8.25 |

Wheel Parts



| Art. No. | Ford No. | Name of Part | Price |
|-----------|----------|----------------------------------|--------|
| 61 E 2854 | 2803C | Front hub assembly, less flange. | \$1.75 |
| 61 E 2855 | 2815C | Rear hub, tapered, less flange. | 1.40 |
| 61 E 2970 | 2819 | Hub cap nickel. | .16 |

Ship. wt., each, 61 E 2854, 4 3/4 lbs.; 61 E 2855, 4 1/4 lbs.; & 61 E 2970, 3 oz.

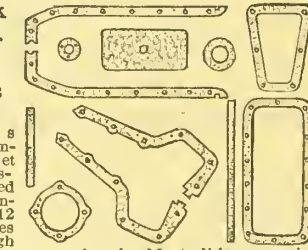


Assortment of Guaranteed Parts for the Ford Car

This package contains 64 of the important parts used the most and that usually have to be replaced first. Every Ford owner should have this assortment package on hand for emergency use—may save its original cost with the first repair. Contains every item shown in illustration. Shipping weight, 3 pounds.

| | | |
|-----------|---------------------|--------|
| 61 E 2964 | Price, per package. | \$3.65 |
|-----------|---------------------|--------|

Cork Gasket Sets



This complete set as illustrated contains 12 pieces of high grade compressed cork. Most all larger engine manufacturers use cork gaskets. You should keep a set on hand at all times. A gasket leak around your engine is dangerous, expensive and dirty. Shipping weight, 2 pounds.

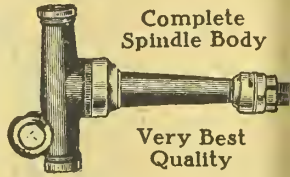
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| 61 E 2965 | Price, per set. | 79c |
|-----------|-----------------|-----|

Spindle Arm Adjustment Bolt and Anti-Rattler

Prevents rattling and loosening of spindle arms which generally loosen quickly. Easily attached. Takes up wear. Ship. wt., per pair, 1 1/2 lb.

| | | |
|-----------|-----------|-----|
| 61 E 2507 | Per pair. | 65c |
|-----------|-----------|-----|

Complete Spindle Body



This complete Spindle Body is drop forged, accurately made, machined and hardened. Complete with cones, washer and nut. Ship. wt., 2 3/4 lbs.

| | | | |
|-----------|-----------------------------------|--------------|--------|
| 61 E 2843 | Right Spindle Body Part No. 2694. | Price, each. | \$2.05 |
| 61 E 2844 | Left Spindle Body Part No. 2695. | Price, each. | \$2.05 |

Spindle Body Bushing Remover



A specially designed tool for quickly removing spindle body bushings. Simply push through until expanders reach inside edge of bushing. Special sleeve compresses ends. Tapping the handle with a hammer easily removes bushing. Illustration shows lower bushing being removed. Reverse to remove upper. Ship. wt., about 1/2 lb.

| | | |
|-----------|--------------|--------|
| 61 E 2442 | Price, each. | \$1.25 |
|-----------|--------------|--------|

Windshield Glasses

\$4.25

Clear, heavy auto-plate glass that fits into regular Ford windshield frames. Clear white, no waves or bubbles. Standard thickness, 3/16 inch. Each one is packed separately with great care to prevent breakage. Fits all 1915-16-17-18-19-20-21 Fords. We cannot furnish glass for older models. Shipping weight, about 16 lbs. Each.

| | | | |
|-----------|--------------------------------------|--------------|--------|
| 61 E 2934 | Upper glass only. Size 10x38 inches. | Price, each. | \$4.25 |
| 61 E 2935 | Lower glass only. Size 12x38 inches. | Price, each. | 4.80 |

Engine Gaskets

Well made of copper and brass, and lined with asbestos. For Ford cars. Set consists of one cylinder head gasket; one cylinder head outlet gasket; one cylinder head water inlet gasket; one carburetor flange gasket; six inlet and exhaust pipe gaskets. Set furnished complete.

| | | | |
|-----------|-------------------|----------------------------------|-----|
| 61 E 2564 | Complete set. | Ship. wt., 14 ounces. Price set. | 49c |
| 61 E 2869 | Head Gasket only. | Ship. wt., 5 ounces. | 34c |

Axle Shaft for Fords

Made of very high grade steel, properly hardened, machined and ground. Will fit perfectly. You can afford to always have one on hand for emergency at our price. Shipping weight, 8 pounds.

| | | |
|------------|-------------|--------|
| 461 E 2804 | Price each. | \$1.25 |
|------------|-------------|--------|

Mufflers for Fords

\$1.48

Similar to the Ford muffler, arranged so that may be attached to any Ford automobile by simply removing the old muffler and attaching this one in its place. If the muffler on your Ford is worn out, rattles or has blown to pieces, use this and get the best results at a low price. Furnished complete as shown. Shipping weight, 4 pounds.

| | | |
|-----------|--------------|--------|
| 61 E 2282 | Price, each. | \$1.48 |
|-----------|--------------|--------|

Iron Brake Shoe

A dependable hub brake shoe unlined. Ford No. 2566. Ship. wt., 4 1/4 lbs.

| | | |
|-----------|-----------------|-----|
| 61 E 2824 | Price, per pair | 55c |
|-----------|-----------------|-----|

Vacuum Bottles

And Lunch Kits for the Auto and Home



Best Quality Nickel-Plated Vacuum Bottle

Our Special Model Finest Vacuum Bottle. Equal to any of the highest priced nickel-plated bottles. A model especially desirable around the home on account of its beautiful finish. Around the sick room a vacuum bottle is a wonderful help. Extra strong metal case, heavily nickel-plated. Can be taken apart and cleaned or a new inner bottle inserted in less than a minute. Neck protrudes above metal casing, preventing contents from coming in contact with metal case when pouring. Screw top serves as drinking cup. Ship. wt., 2 1/4 and 3 1/4 lbs.
61E6604—Pint size. Each \$3.45
61E6605—Quart size. Each 5.40



Corrugated Style Nickel-Plated Vacuum Bottle

A very substantially made vacuum bottle, handsomely nickel-plated. A particular favorite among motorists. The corrugations give non-slipping holding surface, which is a very great convenience and comes in handy on the trip. You can fill the bottle with a hot liquid and keep it hot for 24 hours. This bottle is easy to keep clean. Screw top serves as a drinking cup. Neck of bottle extends beyond casing so that liquid does not touch the metal in pouring. Ship. wt., 2 1/4 and 3 1/4 lbs.
61E6601—One pint size, each \$3.20
61E6602—One quart size, each 4.75



Popular Vacuum Bottle

A thoroughly reliable Vacuum Bottle that will serve you just as faithfully as the real high-priced models. Keeps liquids hot for 24 hours or cold for two days. The principal difference is in the case which encloses the inner bottle. This one is popular among motorists, hunters, fishermen, tourists and others who are not especially particular regarding the finish of the case. It is truly a service model. The case is handsomely enameled with an aluminum shoulder and cup. A spring placed in the bottom of the case cushions the inner bottle giving it the same protection as found in the more costly types. Entire bottle can be easily taken apart. The neck of the inner bottle projects above the metal case so the contents do not touch the metal when pouring. No home or auto should be without a vacuum bottle when you can get an absolutely satisfactory one for the low prices shown below. Shipping weights, pint size, 2 1/4 lbs.; quart size, 3 1/4 lbs.
61E6620—Pint size. Price, each \$2.25
61E6621—Quart size. Price, each 3.50

\$2.25
Pint Size

Vacuum Food Jar

The Vacuum Jar enables you to carry a hot dinner with you on your automobile trip. Meats, beans, soups, in fact all kinds of foods can be kept hot in this jar for 24 hours or ice cream can also be kept solid for a day. The glass jar is supported at the top by a rubber ring and by a padded spring at the bottom. By means of vacuum bottles and these jars you can carry a complete dinner if you so desire. The outer casing of the jar is covered with leather. The opening of the jar is wide to make cleaning easy. Ship. wt., about 3 and 4 1/4 lbs.
61E6635—Pint size. \$3.40
61E6637—Quart size. \$4.85
Price, each \$4.85



\$16.75
61E6464

Complete Lunch Outfits For 4 or 6 Persons

An entirely new suitcase design. Contains 6 each of knives, forks, spoons, nicely finished enamelware cups and plates and napkins together with salt and pepper shakers. The large metal food box has two compartments 12x8x3 1/4 in. A space for one 1-quart vacuum bottle is found on each side of the food box. The vacuum bottles are not furnished with this outfit. Case has black enamel covering, waterproof, with washable linings. Sizes, 21x16 1/2 x 6 in. Ship. wt., 20 lbs. Six person outfit.
61E6463—Price, without bottles, \$21.75

Lunch Kit



With Vacuum Bottle \$3.15

Consists of a one-pint Vacuum Bottle in a light, durable, black enamel metal carrying case. Two clasps. Hinged cover. Length, 10 1/2 inches. Height, 7 inches. Width, 4 1/2 inches. Lower part serves as a lunch box and is large enough to hold food for two persons. Top of bottle serves as a drinking cup. The bottle is mighty handy for mechanics, farmers and school children to carry hot drinks with their lunch as it makes the meal more enjoyable. Just the thing also for touring use, trips on train, fishing trips, picnics, etc. Ship. wt., 4 1/2 lbs.
61E6603—Price of outfit \$3.15



\$5.35 Vacuum Carafe

An unexcelled convenience for the dining room or sick room as it keeps drinking water icy cold for 2 days or coffee, tea, and other liquids hot for 24 hours without fire. It is made on the same principle as the vacuum bottle and has a filler mounted on a padded spring shock absorber. It can be easily and quickly removed. The outside case is of beautiful design and finely plated. Ship. wt., 4 lbs.
61E6606—1 Quart size. \$5.35

Carrying Case for Vacuum Bottles

Neatly finished in imitation leather. Carried by strap on top. Mighty handy for all auto or train tourists. Cases protect finish of bottles and aid in preventing damage by breakage. Food Jars fit same size cases as regular vacuum bottles. One side of large size case can be used for quart size bottle, and other side for food. Furnished in 3 sizes. Ship. wts., 15 oz., 2 lbs., and 2 1/2 lbs.
61E6634—for 1 pint size bottle \$1.85
61E6636—for 1 quart size bottle 2.15
61E6638—for two 1 quart bottles 2.95



Four Person Lunch Outfit
Here is the outfit for the average size auto party. Contains four each of knives, forks, spoons, nicely finished enamelware plates and cups, a salt and pepper box, one large size metal food box, 11x9 1/2 x 3 1/4 in., and a space for holding two 1-pint vacuum bottles. The vacuum bottles are not furnished with this outfit but can be purchased separately. The case has a black enamel covering with a washable, waterproof lining. Size, 18x12x5 1/4 in., outside measurements. Ship. wt., 14 lbs.
61E6464—Four person outfit. Price, without bottles, \$16.75

Glass Inner Bottle to Fit Vacuum Bottles and Jars

61E6607—1 pint inner glass bottle. Fits 61E6601, 61E6604 and 61E6620. Price, each \$1.60
61E6608—1-quart inner glass bottle. Fits 61E6602, 61E6605 and 61E6621. Price, each \$2.30
61E6610—Fits Food Jar 61E6635. 1 pint size. Price, each \$1.98
61E6611—Fits Food Jar 61E6637. 1 quart size. Price, each \$2.95
61E6633—Fits Carafe 61E6606. Price, each \$3.35
Shipping weight, 1 pint size, 1 pound; of 1 quart size, 2 pounds.



Be Sure to Ask for our 100 Page Auto Supply Book

To Make Your Savings Biggest — Ship By Freight

YOUR savings from this catalog, item by item, will be biggest when you ship by freight. Freight on nearly all classes of goods is figured on a minimum of one hundred pounds. In other words, you can usually ship one hundred pounds by freight as cheaply as you can thirty, forty or seventy.

It is easy to make up a one hundred pound shipment which will contain fifty or sixty or seventy pounds of heavy items such as groceries, hardware, etc., and then fill in with lighter things such as underwear, wearing apparel and dry goods and have the whole lot shipped by freight.

Parcel post rates are very low but postage on one hundred pounds of goods by parcel post would amount to a good deal more than the freight on a similar shipment.

Freight conditions are very much improved. There is no great shortage of cars anywhere. Freight schedules

are much faster and are being very much better maintained than for the last three or four years.

Freight shipments will reach your station in a surprisingly short time, usually only from one to four days later than parcel post, depending on how far you live from point of shipment.

Freight rates are really very low when you stop to figure the freight charges on each item. But by including with heavy items the lighter articles of daily need for the home, farm and family, you can spread the freight charge so that it will cost you only a few cents on each item and increase your total saving considerably.

We repeat: Whenever you can, make up a one-hundred pound shipment and have it shipped by freight. That is the best way for you to get the full advantage of the big savings you make by buying from our catalogs.



The Mark of Quality and Service Lakeside



Tool Case

184E2818
Hardwood

panel sides, brass lock, leather handle with rings for shoulder strap, metal clasp, metal corners and saw rack to hold four saws. Partitioned tray. Space in bottom. Outside measurements: Length, 34 1/2 in.; height, 17 in.; width, 6 in. Inside dimensions of tray: Length, 32 1/2 in.; height, 1 1/2 in.; width, 4 1/2 in. Will take a 28-in. saw and large steel square. Ship. wt., 32 lbs.

Machinists Tool Chests

High grade chests in two styles, either solid quarter sawed oak, or black leatherette covering. When unlocked the front folds underneath out of the way. Secure locks with two keys. Nickel-plated corners and strong carry-corners and strong carry-corners and strong carry-corners. Each drawer has felt lining.

184 E 2806—Polished Oak. Size outside, 9 1/2 in. deep, 12 1/2 in. high, 20 in. long. Eight drawers. Size of largest drawer inside, 2 1/2 x 6 1/2 x 18 in. long; smallest drawer, 1 1/2 x 6 1/2 x 8 1/2 in. long. Ship. wt., 23 lbs.

184 E 2807—Same case as above, but black leatherette covered outside.

184 E 2808—Polished Oak. Size outside, 8 in. deep, 10 1/2 in. high, 16 1/2 in. long.

Size drawers. Size of largest drawer inside, 3 x 5 1/2 x 14 1/2 in. long; smallest drawer, 1 x 3 1/2 x 6 1/2 in. long. Ship. wt., 15 lbs.

184 E 2809—Same case as above, but black leatherette covered outside.

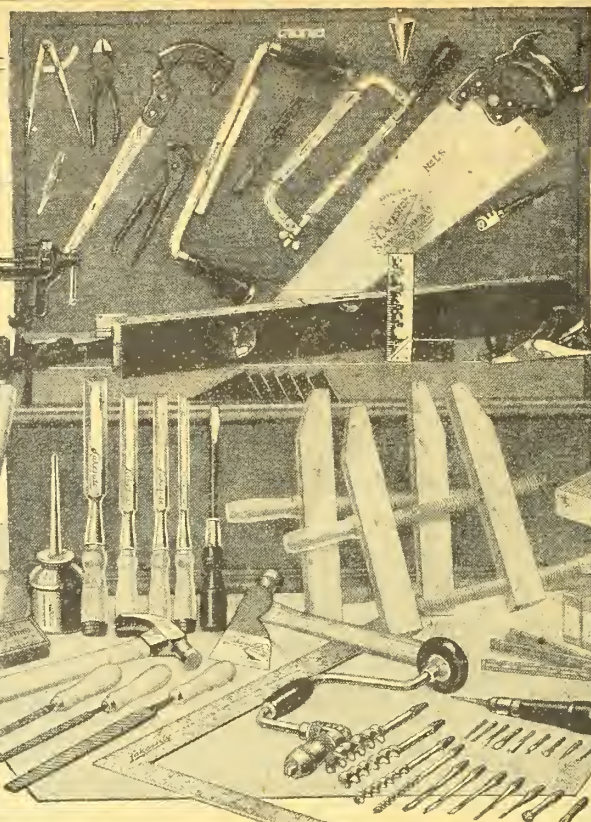
Chests are of polished Red Gum or Hazelwood. Have Mahogany panels. Very attractive.

Bench Tool Chests

184 E 2802—Outside measurements, 24 in. long, 14 1/2 in. wide, 13 in. deep. Receptacle under lid, 21 x 11 1/2 x 3. First drawer, 20 x 10 1/2 x 1. Second drawer, 20 x 10 1/2 x 1 1/2. Third drawer, 30 x 10 1/2 x 2 1/2. Ship. wt., 46 lbs.

Chests are fitted with brass lock, drawer pulls and hinges. Closing cover locks the drawers.

184 E 2804—Outside measurements, 30 inches long, 14 1/2 in. wide, 13 in. deep. Receptacle under lid, 27 x 11 1/2 x 3 in. deep. First drawer, 26 x 10 x 1 in. deep. Second drawer, 26 x 10 x 1 1/2 in. deep. Third drawer, 26 x 10 x 2 1/2 in. deep. Shipping weight, 52 lbs.



Lakeside Tool Set

59 High Grade Tools

HERE'S a fine chest of good tools that you'll be proud to own. Strictly high grade and intended for real hard use. Size of Chest, length 31 1/2 in., width 16 in., depth, 9 1/2 in. Inside. Has sliding tray, lock and handles. Nicely finished. Ship. wt., 88 lbs. Set consists of the following:

One each: Lakeside 24-in. hand saw, and rip saw; hench vise; 5 chisels 1/4, 3/8, 1/2, 3/4, 1 in.; 4 auger bits, 3/8, 1/2, 3/4, 1 in.; 5 gimlet bits; countersink bit; screwdriver bit; hollow handle awl and tools; ratchet hit brace, 10 in.; nail set; compass saw, 10 in.; wood bottom jack plane; flat cutting pliers, 6 in.; pair compasses, 6 in.; try square, 6 in.; wrench, 8 in.; carpenter's pencil; screwdriver, 6 in.; draw knife, 8 in.; half hatchet; steel hammer; heavy mallet; folding rule; plumb and level, 24 in.; iron block plane, 7 in.; 2 wood hand screws; taper file, 6 in.; 3 file handles; flat file, 8 in.; 10 in. cabinet rasp; steel square; iron plumb bob; nail pinners, emery oil stone, 6 in.; oil can; glue. Assorted nails, screws, sand paper; hack saw, glass cutter.

184 E 2778—Chest and Tools. Complete as described. \$32.25

184 E 2779—Chest only, without tools. Ship. wt., 50 lbs. 7.75

Our Hardware Department

We make a specialty of High Grade Tools which are offered under the *Lakeside* brand. This trade mark assures you of a quality product, perfect in every detail. You will find these tools equal to any other brand offered and we stand back of them with our Money Back Guarantee.

Sterling Tool Chest

A well made chest, nicely finished with assortment of 36 standard tools. Inside dimensions, length, 28 in., width, 14 in., and depth, 9 1/2 in. Ship. wt., chest and tools complete, 75 pounds.

One each of the following: wood jack plane; iron block plane; 22-in. hand saw, Lakeside; 10-in. compass saw; 1-in., 3/4-in., 1/2-in. and 1/4-in. chisels; 1-in., 3/4-in., 1/2-in. and 1/4-in. auger bits; screwdriver bit, hollow handle, with 10 tools; 10-in. hit brace; 6-in. screwdriver; shingling hatchet; spoke shave; steel nail hammer; pocket level, 2 1/2 in.; 6-in. try square marking gauge; 6-in. flat cutting pliers; 6-in. compass; 8 x 2-in. oil stone; 2 ft. rule; carpenter's pencil; wrench, 8-in.; oil can; 6-in. flat file; 5-in. round file; 5-in. taper file; nail set; can glue; also, 2 gimlet bits and 3 file handles.

184 E 2770—Chest and Tools. \$20.75

184 E 2771—Chest without tools. Ship. wt., 43 lbs. \$6.75

Gentleman's Work-Box

484 E 2769—A good set of tools for the man who needs a limited number of the best tools for the many jobs around the house or farm. These tools are the high grade Lakeside quality listed in our catalog and soon will pay their original cost by the time and money they will save. Set contains 1 each of the following: Lakeside half hatchet, 24-inch Lakeside hand saw, two-foot rule, 10-inch plain brace, 3 hits, sizes, 3/4, 1/2, 3/8-inch; 6-inch combination pliers, 4-inch screw driver, 10-inch Sillson pipe wrench, Lakeside block plane, 2 pounds of assorted tacks and screws, 1/2-inch Lakeside chisel, 6-inch try square, 5 1/2-inch Lakeside slim taper file, 8-inch Lakeside mill file. Packed in a neat plain box complete with hinges, hasp and screws. Can be made into a tool box. Ship. wt., 25 lbs.

184 E 2770—Chest and Tools. \$20.75

184 E 2771—Chest without tools. Ship. wt., 43 lbs. \$6.75

184 E 2772—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2773—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2774—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2775—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2776—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2777—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2778—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2779—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2780—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2781—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2782—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2783—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2784—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2785—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2786—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2787—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2788—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2789—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2790—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2791—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2792—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2793—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2794—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2795—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2796—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2797—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2798—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2799—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2800—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2801—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2802—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2803—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2804—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2805—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2806—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2807—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2808—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2809—Chest only, without tools. Ship. wt., 50 lbs. 7.75

184 E 2810—Chest only, without tools. Ship. wt., 50 lbs. 7.75



Handy Tool Roll

84 E 2759—This set is used extensively by shopmen in all vocations, also by farmers on machinery—trucks—tractors—autos—etc. All good tools selected for strength and durability. List of tools: double end wrenches 1/2 to 1 1/2 inch, 1 alligator wrench, 1 9-in. auto wrench, 1 3-in. blade screw driver, 1 5-in. blade screw driver, 1 9 1/2-in. all steel screw driver, 1 6-in. combination plier, 1 8-in. round file, 1 handle, 1 3/8-in. center punch, 1 3/8-in. regular punch, 1 1/2-in. cold chisel, 1 1/2-in. cape chisel, 1 1/2-in. cotter pin extractor, 1 10-oz. ball pein hammer, bearing scraper, 1 box assorted cotter pins, Can. Roll. Shipping weight, 7 lbs.

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Lakeside Saws Cut Clean

Lakeside Saw Style .100

E 22 — Extra refined spring steel. Patent ground tempered. Thin back. Hand hammered. Hand-filed set. Skew back. Carved applewood handle. Brass screws. Ship wt., about 3½ to 4 pounds. Especially adapted for fast, smooth cutting on interior finish.

| Size | 22-in. Panel | 24-in. Hand | 26-in. Hand | 26-in. Rip | 28-in. Rip |
|-----------------|--------------|-------------|-----------------|------------|------------|
| Points to inch | 9, 10, 12 | 8, 9, 10 | 7, 8, 9, 10, 12 | 5½, 6 | 5, 5½ |
| Ship. wt., lbs. | \$2.10 | \$2.30 | \$2.35 | \$2.35 | \$2.60 |

Lakeside Saw Style L7

E 20 — A good saw for all-around outside work. Patent taper ground and tempered. Made of refined crucible steel. Straight thin back, hand-hammered. Brass screws. Hand-filed and Give size and point wanted. Ship. wt., about 3½ to 4½ pounds.

| Size | 22-in. Panel | 24-in. Hand | 26-in. Hand | 26-in. Rip | 28-in. Rip |
|-----------------|--------------|-------------|-------------|------------|------------|
| Points to inch | 10, 12 | 8, 10 | 7, 8, 9, 10 | 5½, 6 | 5, 5½ |
| Ship. wt., lbs. | \$1.75 | \$1.85 | \$1.95 | \$1.95 | \$2.25 |

Lakeside Narrow Blade

E 30 — Hand Saw to run without set. Narrow steel 1½ in. wide at the butt, 1¼ in. wide at the point, concave taper ground. Carved beech handle. Brass screws. Used for inside finishing, smooth cutting and where fine work and close joints are required. Ship. wt., about 3 lbs. 26-in. blade, 8, 9, 10, 12 points to an inch. Give point wanted. \$2.95

Genuine Henry Disston Saws \$2.65

E 38 Genuine Henry Disston Saw, D.S., with skew back, full polished blade, applewood handle. We carry the following sizes and points only. Give point wanted.)

| Size | Points to inch | Weight | Each |
|-------------|----------------|--------|--------|
| 24-in. Hand | 8, 10 | 2 lbs. | \$2.65 |
| 26-in. Rip | 5½ | 2 lbs. | 2.65 |

Bracket Saw Outfit

E 140 — Width of frame, 5 in. Depth, 12 in. With 3 sheets of deslans, 12 saw blades, 1awl, 1 sheet of carbon Impression paper, in pasteboard box. Ship. wt., 1½ lbs. \$1.58

Scroll or Bracket Saw Blades

E 142 — Good quality 5-in steel blades. Packages of 1 dozen, 2, 3, 4, 5, 6, 7, 8, 9, 10. No. 1 the finest.

| | |
|-------------|-----|
| 1 to 6. Doz | 13c |
| 7. Dozen | 16c |
| 8. Dozen | 17c |
| 9. Dozen | 18c |
| 10. Dozen | 19c |

Nickel-Plated Coping Saw

E 137 — Nickel-plated Steel Wire Frame Depth 4 in. Cut, 4 in. Ship. wt., 8 oz. With one dozen blades. 25c

E 138 — Extra Blades. dozen. 15c

Stanley Saw Set

E 334 — Convenient pistol grip. Adjustable graduated anvil with lock nut. Plunger and anvil are tempered steel. Ship. wt., 1½ lbs. Each. \$1.95

Lakeside Nail Cutting Saw

84 E 34 — Will cut wood, nails, sheet metal and gas pipe. Saves your hand saws. Polished steel blade. Applewood handle, brass screws. It can be filed, but does not require setting as it is taper concave ground. A most desirable addition to any carpenter's kit of tools. Shipping weight, 3 pounds. Length of blade, 18 in. Each. \$1.88

Lakeside Utility Saw

184 E 37 — A durable saw for the farm or shop, for heavy work such as bridge timbers. Also used in the construction of concrete framing and false work. The blade is of fine crucible steel, 18-gauge, with bevel filed teeth. Light, malleable iron handle, well riveted. State size wanted. Size, inches. 30 36 4½ 5½ Ship. wt., lbs. \$2.75 \$3.75 Each.

Standard Saws 26-inch

84 E 40 — Skew Back polished. Good grade saw steel, fitted with applewood handle. Brass screws. Give size and point wanted.

| Size | Points to in. | Ship. wt. | Each |
|--------------|---------------|-----------|--------|
| 18-in. Panel | 10 | 3 lbs. | \$.95 |
| 26-in. Rip | 6 | 3½ lbs. | 1.25 |
| 26-in. Hand | 9 | 4 lbs. | 1.25 |

Lakeside Extra Quality Compass Saw

84 E 71 — Compass saw. Steel blade. Thin back, hand hammered, filed and set. Beech handle. Brass screws. Ship. wt., 3 lbs. Lgh., in. 12 14 Each. 58c 69c

Lakeside Saw Set

84 E 60 — Consists of a Metal Cutting Saw, length 18 in., a Compass Saw, length 14 in., a Keyhole Saw, length 13½ in. and one adjustable handle. Ship. wt., 3½ lbs. Set, complete. \$2.35

Lakeside Handy Set of Saws

Four Complete Saws: Panel, Rip, Compass, Keyhole In Khaki Case

\$4.95 Complete Set in Case

84 E 47 — A set of Lakeside brand hand saws, comprising a detachable handle and four polished steel blades, one panel saw, 18 in.; one rip saw, 18 in.; one compass saw, 12 in.; one keyhole saw, 10 in. The blades are held rigidly in place by a lever on top of the handle, where it cannot interfere with the work. With Khaki case. Shipping weight, 1¼ lbs. Price, complete. \$4.95

Lakeside Nail Cutting Compass Saw

84 E 72 — Extra Quality 12-inch blade, h o l - low ground. Will cut wood or metal. Needs no set. May be sharpened with a file. Finished handle. Ship. wt., 2 lbs. Each. 85c

Hack and Coping Saws and Blades



84 E 115 — Nickel-plated, strong steel frame. Holds blades 8 to 12 in. long. Adjustable to face the blades at four different angles. Tightens with thumb nut. When saw is inserted in position, it is as firm as a solid frame. Shipping weight, 1 pound. With one 8-in. blade. Each. 48c

Adjustable Coping Saw



84 E 130 — Handle and blade revolve, or can be held perfectly rigid. Depth, 4¼ in. hardwood handle. Ship. wt., 12 ounces. With three blades, 6x¾ in. Ship. wt., per dozen blades 3 oz. 85c

84 E 132 — Extra blades. Dozen. 55c

Genuine Star Hack Saw Blades

84 E 122 — Made of hard steel. Every blade perfect and will satisfy you. Regular teeth, 14 to inch. Ship. wt., doz. 4 to 12 oz. Length, in. 8 9 10 12 Doz. 59c 69c 80c 98c Each. 6c 7c 8c 9c

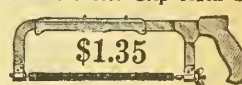
Heavy Blade for Power Saws

84 E 123 — Length, 12 in.; width, ¾ in. Ship. wt., doz. 18 oz. Dozen. \$1.28 Each. .12

Goodell-Pratt Hack Saw Blades

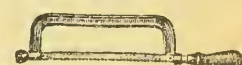
84 E 124 — Made from finest rolled sheet steel, sharpened and set by special process which makes them remarkably fast cutters. Ship. wt., per dozen, 5 to 12 ounces. Regular teeth. (14 to inch.) For iron and steel. Length, in. 8 9 10 12 Dozen. 69c-79c 88c \$1.10 Each. 7c 8c 9c 10c

Genuine Pistol Grip Hack Saw



84 E 109 — Heavy, adjustable nickel-plated steel frame. Handle shaped so it gives a comfortable grip. Tightened by wing nut. Holds blades 8 to 12 inches. Ship. wt., 1¼ lbs. with an 8-in. blade. Each. \$1.35

Iron Frame Hack Saw



84 E 112 — Japanned iron frame, wood handle. The blade can be faced four ways. Ship. wt., 12 oz. With one 8-in. blade. Each. 36c

Flexible Hack Saw Blades



Manufactured by a special process, whereby the teeth only are hardened, the back remaining soft and tough. The blade will not stretch, snap or break, assuring the user full efficiency until the teeth are worn dull. Ship. wt., per dozen, 5 to 12 oz.

84 E 120 — Regular teeth, 14 to the inch. For iron or steel. Length, in. 8 9 10 12 Dozen. 4c 45c 50c 69c Each. 4c 5c 6c 7c

84 E 121 — Fine teeth, 24 to the inch, for brass or tubing. Length, in. 8 9 10 12 Dozen. 40c 45c 50c 69c Each. 4c 5c 6c 7c

Lakeside Quality Saw Set



84 E 310 — A finely finished full nickel-plated tool with eccentric anvil and indicator, giving the number of teeth to the inch, which enables you to always hold a uniform set in the saw. The lever is placed below and operated by the fingers only, doing away with the motion of the entire hand. The Revolving Anvil covers the required bevel and length of all saw teeth, ranging from 4 to 16 points to the inch. Hardened anvil and plunger. Length, 7 in. Ship. wt., 1 lb. Each. \$1.35

Morrill's Pattern Saw Set



84 E 322 — Morrill's Pattern Saw Set. Size 1. For hand saws. Full polished. Well made, and good value at our price. Length, 6¾ in. Ship. wt., 14 oz. Each. 44c

For Real Satisfaction



Lakeside Easy Chop Axe

Our Easy Chop Axe, Michigan pattern. Single bit. A strictly high-grade axe with a keen cutting edge. Refined steel, carefully tempered. Polished and bronzed finish.

484 E 1686—Fitted with extra quality oval white hickory handle. Width of bit, about 5 in. Ship. wt., about 7 lbs.

| | | | | |
|----------------------|--------|--------|--------|--------|
| Weight of head, lbs. | 3 | 3½ | 4 | 4½ |
| Each. | \$1.75 | \$1.80 | \$1.85 | \$1.90 |

84 E 1687—As above without handle. Ship. wt., about 7 lbs.

| | | | | |
|----------------------|--------|--------|--------|--------|
| Weight of head, lbs. | 3 | 3½ | 4 | 4½ |
| Each. | \$1.35 | \$1.40 | \$1.45 | \$1.50 |

Square Poll Axe

Dayton Pattern

Made of extra quality refined steel carefully tempered with keen cutting blades. Natural black finish. Handles of best quality white hickory, oval. Width of bit about 4 inches.

| | | | |
|---------------------------|---------|--------|---------|
| 84 E 1697—With handles | 3½ lbs. | 4 lbs. | 4½ lbs. |
| 84 E 1699—Without handles | \$1.80 | \$1.85 | \$1.90 |
| | 1.40 | 1.45 | 1.50 |

Lakeside Razor Blade Axe

Single Bit

Our Famous Razor Blade Axe, Michigan pattern. High-grade steel. Full polished and etched. Has a thin, keen cutting edge. The handled axes are accurately fitted with excellent, octagon, second growth hickory handles.

With Handle

484 E 1704—Fitted with high-grade octagon handle. Ship. wt., 6 lbs. Width of bit, about 5 in. Wt. of head, 3½ lbs., each, \$2.35; 4 lbs., each, \$2.45; 4½ lbs., each, \$2.55.

Without Handle

84 E 1705—Axe head only, without handle. (Give size.) Ship. wt., 6 lbs. Width of bit, about 5 inches. 3½ lbs., each, \$1.80; 4 lbs., each, \$1.90; 4½ lbs., each, \$2.00.

Lakeside Easy Chop Boys' Axe

484 E 1710—Easy Chop Boys' Axes. Made from refined steel. Same superior quality and workmanship as found in our full size axes. Polished and bronzed finish. Fitted with 26-inch hickory handles. Width of bit, 4 inches. Weight, with handle 3¼ pounds. Ship. wt., about 4 pounds.

84 E 1762—Boys' light oval hickory axe handle. Good quality. Length, about 26 in. Ship. wt., each, about 1 lb. Each, \$1.10.

Hunters' Standard Axe

84 E 1667—Widely used by hunters and in boys' military training camps. Solid forged steel head. Attractively finished. Width of blade, about 3 in. With nail pulling slot. Fitted with 13-in. well-formed attractively stained hickory handle. Complete with neat leather case for blade. Ship. wt., 2½ lbs.

84 E 1672—Similar to above without leather case. Each \$1.10.

Lakeside Razor Blade Axe

Double Bit With Handle

484 E 1707—Fitted with high-grade octagon handle. (Give size.) Ship. wt., 7 lbs. Width of bit, about 5 in. Wt. of head, lbs. 4 4½ Each. \$2.95 \$3.05

Without Handle

84 E 1708—Axe head only, without handle. (Give size.) Ship. wt., about 6 lbs. Width of bit, about 5 in. Wt., lbs. 4 4½ Each. \$2.40 \$2.50

Axe Handles

Oval Hickory

484 E 1752—Turned No. 1 Hickory. Length, 36 in. Ship. wt., each 1½ lbs. Each, \$3.80.

Lakeside Single Bit Handle

484 E 1750—Made of extra select second growth hickory, shaved, octagon shape. Length, 36 in. Ship. wt., each, 1 lb. Each, \$5.80.

Lakeside Double Bit Handle

484 E 1756—Made of extra select second growth hickory, shaved. Length, 36 in. Ship. wt., each, 2 lbs. Each, \$5.80.

Lakeside Highest Quality Razor Edge Axes

Our Lakeside Special Axe is a tool which will satisfy the most critical woodsman. A top notch quality axe in every respect. Made of forged steel, accurately shaped, carefully tempered, and finished in a jet black finish. Flint edge, hand honed, accurately fitted with selected best quality white hickory octagon shaped handle. Width of bit, 4½ in.

484 E 1679—Single bit with finest grade octagon handle. Ship. wt., about 5 to 7 lbs.

| | | | | |
|-----------|--------|--------|--------|--------|
| Head lbs. | 3 | 3½ | 4 | 4½ |
| Each. | \$2.15 | \$2.25 | \$2.35 | \$2.45 |

84 E 1680—Single bit, without handle. Ship. wt., about 4 to 6 lbs.

| | | | | |
|-----------|--------|--------|--------|--------|
| Head lbs. | 3 | 3½ | 4 | 4½ |
| Each. | \$1.60 | \$1.70 | \$1.80 | \$1.90 |

Lakeside Files Meet Every Requirement

Lakeside Mill File

84 E 1460—Bastard Cut, Square edges. Lakeside brand. Fine crucible steel, perfectly cut, correctly tempered. Single Cut.

| | | | |
|------------------------|-----|-----|-----|
| Size, in. | 4 | 6 | 8 |
| Ship. wt., about, lbs. | 10c | 13c | 14c |
| Each. | 10 | 12 | 16 |
| Size, in. | 10 | 12 | 14 |
| Ship. wt., about, lbs. | 1½ | 2¼ | 2 |
| Each. | 20c | 29c | 40c |
| | | | 55c |

Lakeside Mill File—One Round Edge

84 E 1461—Lakeside Brand. Bastard cut, single round edge. Finest crucible steel, perfectly cut, correctly tempered. Single Cut.

| | | |
|------------------------|-----|-----|
| Size, in. | 6 | 8 |
| Ship. wt., about, lbs. | 14c | 19c |
| Each. | 10 | 12 |
| Size, in. | 10 | 12 |
| Ship. wt., about, lbs. | 1½ | 2¼ |
| Each. | 24c | 33c |
| | | 45c |

Lakeside Flat Bastard File

84 E 1462—Lakeside Brand. Bastard double cut. Finest crucible steel, perfectly cut, correctly tempered. Double Cut.

| Size | Ship. Wt. | Each | Size | Ship. Wt. | Each |
|-------|-----------|------|--------|-----------|------|
| 4 in. | ¼ lb. | 14c | 10 in. | ½ lb. | 26c |
| 6 in. | ¾ lb. | 17c | 12 in. | ¾ lb. | 37c |
| 8 in. | ¾ lb. | 20c | 14 in. | 1½ lbs. | 52c |
| | | | 16 in. | 2¼ lbs. | 75c |

Handy Farm File

84 E 1483—Quickly sharpens mowing machine knives. Knife blade shape, smooth cut; not cut on thick edge. Blade, 9½x¾ in. Strong wood handle. Ship. wt., ½ lb. Each, 39c.

Special Value—Handy File Assortment

Price, 75c

A very handy and useful file assortment. Consists of 1 each of the following files:

- 10-inch Lakeside Mill File.
- 10-inch Lakeside Mill File, 1 round edge.
- 10-inch Lakeside Flat Bastard File.

4½-inch Slim Taper Saw File.

5½-inch Slim Taper Saw File.

84 E 1458—Weight, 1½ lbs. Price, 75c.

Lakeside Half Round Bastard File

84 E 1465—Lakeside brand. Bastard double cut. Finest crucible steel, perfectly cut, correctly tempered. Double cut.

| | | | | |
|------------------------|-----|-----|-----|-----|
| Size, in. | 8 | 10 | 12 | 14 |
| Ship. wt., about, lbs. | 8c | 10c | 12c | 14c |
| Each. | 27c | 34c | 45c | 60c |

Lakeside Half Round Wood Rasp

84 E 1468—Lakeside brand. Coarse cut. Finest crucible steel, perfectly cut, correctly tempered.

| | | | |
|------------------------|-----|-----|-----|
| Size, in. | 10 | 12 | 14 |
| Ship. wt., about, lbs. | 55c | 72c | 95c |
| Each. | | | |

Lakeside Round Bastard File

84 E 1464—Lakeside Brand. Bastard double cut. Finest crucible steel, perfectly cut, correctly tempered.

| | | | | | |
|----------------|-----|-----|-----|-----|-----|
| Size, in. | 4 | 6 | 8 | 10 | 12 |
| Ship. wt., oz. | 1 | 2 | 3 | 4 | 5 |
| Each. | 11c | 14c | 17c | 22c | 29c |

Genuine Heller Bros. Horse Rasps

84 E 1490—Genuine Heller Bros. Horse Rasp. Special crucible steel.

| | | |
|--------|-----------|------|
| Size | Ship. Wt. | Each |
| 12 in. | 1¼ lbs. | 32c |
| 14 in. | 2½ lbs. | 45c |
| 16 in. | 2¾ lbs. | 62c |

Lakeside Regular Taper Saw Files

84 E 1478—Single cut on three sides. Finest steel, perfectly and correctly tempered.

| | | | | |
|---------------|-------|-------|-------|-------|
| Length. | 4 in. | 5 in. | 6 in. | 8 in. |
| Ship. wt. oz. | 8c | 10c | 15c | 21c |
| Each. | | | | |

84 E 1480—Single cut on three sides. Finest steel, perfectly and correctly tempered.

| | | | | | | | |
|---------------|-------|-------|-------|--------|-------|-------|-------|
| Length. | 3 in. | 4 in. | 5 in. | 5½ in. | 6 in. | 7 in. | 8 in. |
| Ship. wt. oz. | 8c | 9c | 11c | 12c | 13c | 14c | 15c |
| Each. | | | | | | | |

Lakeside Extra Slim Taper Saw Files

84 E 1481—Single cut three sides.

| Lgth. | Ship. wt. | Each |
|-------|-----------|------|
| 5 in. | ¼ oz. | 9c |
| 6 in. | 1 oz. | 12c |

Doublet End Taper Files

| Lgth. | Ship. wt. | Each |
|--------|-----------|------|
| 8 in. | 4 oz. | 15c |
| 10 in. | 5 oz. | 19c |

Lakeside Cant Saw Files

84 E 1472—Single cut. Finest crucible steel, perfectly cut and tempered.

| Length | Ship. Wt. | Oz. | Each |
|--------|-----------|-----|------|
| 6 in. | 4 | | 20c |
| 8 in. | 6 | | 25c |
| 10 in. | 9 | | 34c |

Colton Steel File Cleaner

84 E 1504—Colton's Steel File Cleaner. Steel bristles and steel picker. Length, 7¼ in. Ship. wt., 10 oz. Each, 43c.

84 E 1500—Iron File & Tool Handle. Made of 1½ in. octagon steel. Length, 5 in. Ship. wt., 9 oz. Each, 1.10.

Steel Wood Wedge

84 E 1732—Steel Wood Wedges. For splitting and wedging logs. Narrow bit. Oil finish. Av. Lgth., 9 in. Ship. wt., 6 lbs.

| | |
|------|-----|
| Each | 36c |
| 4½ | 40c |
| 5 | 45c |

Cant Hooks

84 E 245—For handling logs. Whh 4½-ft. heavy, hard maple handles. Ship. wt., 7 lbs. Each, \$2.25.

84 E 246—Extra handles, selected maple. Length, 4½ feet. Ship. wt., 4 lbs. Each, 98c.



Log Carrier

84 E 252—Log Carrier Capacity 3 inches to 16 inches. Hooks are highest quality, duck bill pattern, made of forged steel. Handles of hard maple. Lgth., 42 in. with swivel. Shipping weight, 7 pounds. Each, \$2.75.



484 E 250 Skidder

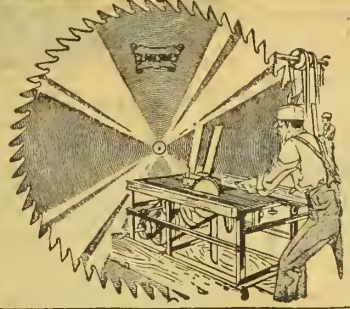
Will open about 32 inch. Made of 1½ in. octagon steel. Length, 5 in. Ship. wt., 20 pounds. Each, \$4.00.

Use Lakeside Tools

Lakeside High Speed Circular Saws

Extra quality. Prices are for saw, set and sharpened ready for use. Be sure to give size of hole and style of saw wanted.

Lakeside Circular Saws are made from the best grade crucible Saw Steel, correctly tempered, smithed, blocked, set and hammered. Lakeside Saws are the product of expert sawyers of many years' experience in successful sawmaking, which enables them to correctly build each saw to give you the service you are entitled to.



| 84 E 260—Circular Crosscut Saw. | | | | |
|---------------------------------|------------------|-------------------|-------------------------|--------|
| 84 E 261—Circular Rip Saw | | | | |
| Diameter, Inches | Thickness, Gauge | Size Hole, Inches | Approx. Shipping Weight | Each |
| 4 | 10 | 3/4 | 3 oz. | \$.90 |
| 6 | 18 | 1 | 7 oz. | 1.35 |
| 8 | 18 | 1 1/4 | 12 oz. | 1.80 |
| 10 | 16 | 1 1/2 | 1 1/2 lbs. | 2.48 |
| 12 | 15 | 1 3/4 | 3 1/2 lbs. | 3.30 |
| 14 | 14 | 1 3/4 | 3 1/2 lbs. | 3.98 |
| 16 | 14 | 1 3/4 | 6 1/2 lbs. | 4.88 |
| 18 | 13 | 1 3/4 | 6 1/2 lbs. | 5.95 |

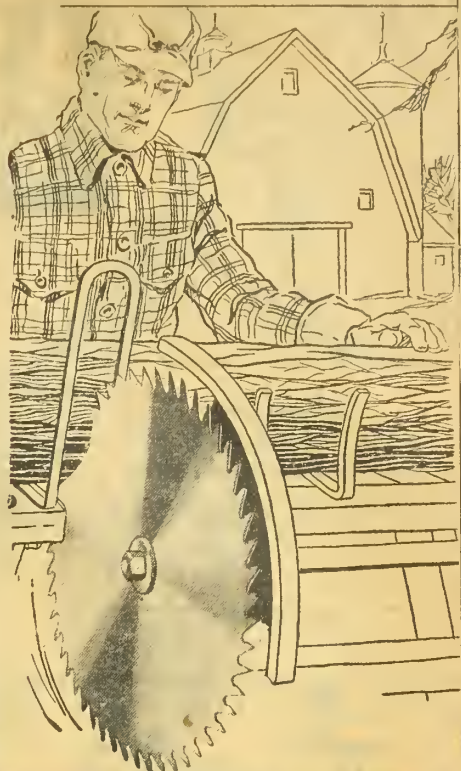
| 184 E 260—Circular Crosscut Saw. | | | | |
|----------------------------------|------------------|-------------------|-------------------------|---------|
| 184 E 261—Circular Rip Saw. | | | | |
| Diameter, Inches | Thickness, Gauge | Size Hole, Inches | Approx. Shipping Weight | Each |
| 20 | 13 | 1 1/2 | 10 1/4 lbs. | \$ 7.10 |
| 22 | 12 | 1 1/2 | 12 1/4 lbs. | 8.62 |
| 24 | 10 | 1 3/4 | 16 1/4 lbs. | 10.15 |
| 26 | 10 | 1 3/4 | 20 lbs. | 11.95 |
| 28 | 10 | 1 3/4 | 23 1/2 lbs. | 13.90 |
| 30 | 10 | 1 3/4 | 28 lbs. | 15.75 |
| 32 | 9 | 1 3/4 | 33 lbs. | 17.95 |
| 36 | 9 | 1 3/4 | 51 lbs. | 23.25 |

Saws listed can be furnished with any ordinary size hole at no extra charge. We carry in stock for immediate shipment saws in standard sizes, as listed, but can supply special gauges as promptly as anyone. It usually takes from 10 to 30 days to make up special saws at the factory. Prices on saws larger than 36 inches and on inserted tooth saws named on application.

Eclipse Cordwood Saw

184 E 264—Made expressly for use on Cordwood or Pole Sawing Machines and on our Saw Mandrels. They are hammered to run properly at the usual speed of these machines. The improved special shaped teeth with large gullet makes these saws cut fast and hold their edges remarkably. They are tempered to stand the hard outdoor severe weather service to which they are subjected. Made only in sizes listed below, for cross-cut sawing.

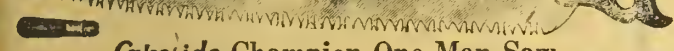
| SIZE HOLE IN CENTER | | | | |
|---------------------|-----------------|----------------|--------|--------|
| Diam. in. | Thickness Gauge | Ship. Wt. Lbs. | 1 1/4 | 1 1/2 |
| 20 | 13 | 9 1/4 | \$3.56 | \$3.67 |
| 22 | 12 | 12 | 4.30 | 4.32 |
| 24 | 11 | 16 | 4.98 | 5.00 |
| 26 | 11 | 20 | 5.95 | 5.97 |
| 28 | 10 | 25 | ..... | ..... |
| 30 | 10 | 30 | ..... | ..... |
| 32 | 9 | 35 | ..... | ..... |
| 36 | 9 | 49 | ..... | ..... |



Lakeside Special Arc Ground One-Man Saw

184 E 219—Full arc ground. Has skew back. Fast cutting and requires but little set. Polished steel blade, ground to a uniform thickness at cutting edge, with a uniform reduction in thickness from the teeth to the back, as well as from the point to the handle. Cutting edge is 15 gauge; back is 17 gauge at point, tapering to 19 gauge at the handle. Large, comfortable handle.

| Length, feet | 3 | 3 1/2 | 4 | 4 1/2 |
|---|--------|--------|--------|--------|
| Shipping weight, pounds (with supplementary handle) | 4 | 4 1/2 | 5 | 6 1/2 |
| | \$2.82 | \$3.29 | \$3.76 | \$4.23 |



Lakeside Champion One-Man Saw

184 E 211—Lakeside One-Man Saws, with Champion Tooth, taper ground, two gauges thinner on back than on tooth edge. Polished steel. (Prices include one supplementary handle.)

| Length, ft. | 3 | 3 1/2 | 4 | 4 1/2 |
|-----------------|--------|--------|--------|--------|
| Ship. wt., lbs. | 3 1/2 | 4 1/2 | 5 | 5 |
| | \$1.85 | \$2.18 | \$2.48 | \$2.79 |

Lakeside Pond Ice Saw

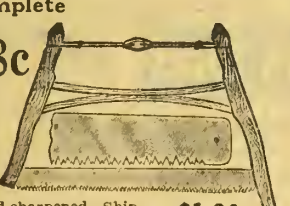
184 E 221—Extra quality polished steel blade. Prices complete with filler handle, as illustrated. Width apers from 7 inches to 5 inches at the point. Shipping weight, 16 pounds. Length, 5 feet.



Standard Buck Saw

Polished Wide Blade

84 E 152—Frame of selected hardwood, painted red. Polished, wide blade of extra steel, finely tempered. Length, 30 inches. Standard V tooth, set and sharpened. Shipping weight, 5 pounds.



84 E 146—Selected hardwood frame. Var. finished finish. Improved rod. Champion tooth blade, 30 inches. Tempered spring steel. Teeth set and sharpened. Shipping weight, 5 pounds.

84 E 158—Buck Saw Blade. Extra spring steel, patent ground and tempered, polished. Length, 30 inches. Set and sharpened. Champion tooth. Fast, easy cutting. Shipping weight, 12 ounces.

Complete 98c

Circular Saw Mandrels

184 E 285—Of the latest and most improved pattern, pulley on end or in center. Be sure to specify which style. Heavy iron mountings. Steel shaft. Free running ball-bearing Bearings.



| Size | Diam. Pulley In. | Face Pulley In. | Length Shaft In. | Diam. Shaft In. | Size Hole In Saw | Ship. Weight Lbs. |
|------|------------------|-----------------|------------------|-----------------|------------------|-------------------|
| 0 | 2 | 3 | 16 1/2 | 3/4 | 3/4 | 14 |
| 1 | 2 1/2 | 3 1/2 | 18 1/2 | 1 1/4 | 1 1/4 | 18 1/2 |
| 2 | 3 | 4 | 19 | 1 3/4 | 1 3/4 | 21 |
| 3 | 3 1/2 | 4 1/2 | 21 1/2 | 1 3/4 | 1 3/4 | 31 |
| 4 | 4 1/2 | 5 1/2 | 24 | 1 3/4 | 1 3/4 | 38 1/2 |
| 5 | 4 1/2 | 5 1/2 | 26 | 1 3/4 | 1 3/4 | 39 |
| 6 | 5 | 6 | 28 | 1 3/4 | 1 3/4 | 45 |
| 7 | 5 1/2 | 6 1/2 | 30 1/2 | 1 3/4 | 1 3/4 | 50 |
| 8 | 6 | 7 | 32 1/2 | 1 3/4 | 1 3/4 | 60 |
| 9 | 7 | 8 | 37 | 1 3/4 | 1 3/4 | 70 |
| 10 | 8 | 9 | 41 1/2 | 1 3/4 | 1 3/4 | 96 |

| 184 E 285 Pulley on End Each | | 184 E 286 Pulley in Center Each | |
|------------------------------|--------|---------------------------------|--------|
| Size | Price | Size | Price |
| 14 | \$3.95 | 14 | \$5.45 |
| 18 1/2 | 5.95 | 18 1/2 | 8.00 |
| 21 | 8.60 | 21 | 8.60 |
| 31 | 10.25 | 31 | 10.30 |
| 38 1/2 | 11.65 | 38 1/2 | 12.90 |
| 39 | 12.50 | 39 | 12.90 |
| 45 | 16.50 | 45 | 16.50 |
| 50 | 18.90 | 50 | 18.90 |
| 60 | 21.60 | 60 | 21.60 |
| 70 | 21.60 | 70 | 21.60 |
| 96 | 21.60 | 96 | 21.60 |

Morrill's Saw Set



84 E 326—Size 3, for single-tooth crosscut and circular saws from 20 to 14 gauge. Ship. wt. 1 1/2 lbs.

84 E 327—Size 4, for champion or M-tooth crosscut saws, 22 to 14 gauge. Ship. wt. 1 1/2 lbs.

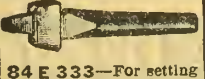
84 E 328—Size 5. Length, 15 in. For circular and other saws, 14 to 6 gauge. Ship. wt. 3 1/2 lbs.

Aiken's Pattern Saw Set



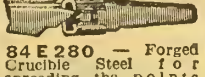
84 E 330—Aiken's Pattern cast steel Hammer Saw Set. Teeth are in plain view while being set. Set screw for gauging angle of set. Length 3 1/2 inches. Ship. wt., 12 ounces.

Whiting Saw Set



84 E 333—For setting circular, one and two man saws only, used with hammer. Forged steel, tempered and polished. Length, 3 1/2 in. A popular tool at a low price. Ship. wt., 5 oz.

Saw Swages for Circular Saws



84 E 280—Forged Crucible Steel for spreading the points of saw teeth.

Size 1 for gauge 5 to 10. Ship. wt., \$4.83

Size 2 for gauge 10 to 12. Ship. wt. 1 1/2 lbs. \$4.05

Size 3 for gauge 10 to 14. Ship. wt. 2 lbs. \$3.15

Crosscut Saw Handles

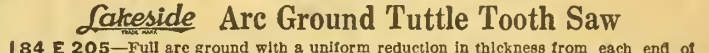
84 E 230—Saw handles with malleable loop. Lgth. about 12 in. Ship. wt., 1 1/2 lbs. Pair (two) .34c



Lakeside Narrow Champion Saw

184 E 201—Polished steel, set and filed ready for use. Width, 3 in. (Prices without handles)

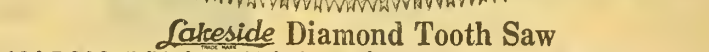
| Length, feet | 5 1/2 | 6 |
|-----------------------|--------|--------|
| Shipping weight, lbs. | 4 | 4 1/2 |
| | \$1.82 | \$1.98 |



Lakeside Arc Ground Tuttle Tooth Saw

184 E 205—Full arc ground with a uniform reduction in thickness from each end of the saw to the center, as well as from the teeth to the back. Cutting edge is 14 gauge, back 16 gauge, and center is 19 gauge. A fast cutting saw requiring but little set, and a great favorite with the expert woodman. Polished crucible steel, finely tempered and finished. Set and filed ready for use. (Prices do not include handles.)

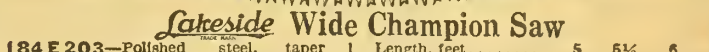
| Length, feet | 5 | 5 1/2 | 6 | 6 1/2 |
|-------------------------|--------|--------|--------|--------|
| Shipping weight, pounds | 5 1/2 | 6 1/2 | 7 | 8 |
| | \$4.95 | \$5.45 | \$5.95 | \$6.45 |



Lakeside Diamond Tooth Saw

184 E 206—Polished steel, thin back, ground to a true taper, four gauges thinner on back than on cutting edge. A fast, easy-cutting saw. (Without handles.)

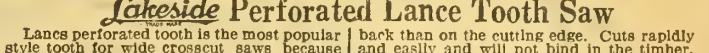
| Length, feet | 5 | 5 1/2 | 6 | 6 1/2 |
|-------------------------|--------|--------|--------|--------|
| Shipping weight, pounds | 4 1/2 | 5 1/2 | 6 1/2 | 7 1/2 |
| | \$3.45 | \$3.80 | \$4.15 | \$4.50 |



Lakeside Wide Champion Saw

184 E 203—Polished steel, taper ground 14 gauge at teeth and 16 gauges at back. (Without handles.)

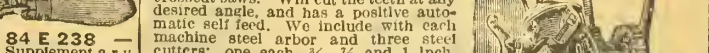
| Length, feet | 5 | 5 1/2 | 6 |
|-----------------|--------|--------|--------|
| Ship. wt., lbs. | 6 1/2 | 7 | 8 1/2 |
| | \$2.95 | \$3.25 | \$3.60 |



Lakeside Perforated Lance Tooth Saw

Lances perforated tooth is the most popular style tooth for wide crosscut saws because this tooth cuts and clears easily in any kind of wood. LAKESIDE brand, made of high-grade polished saw steel. Thin back ground to a true taper, four gauges thinner on the back than on the cutting edge. Cuts rapidly and easily and will not bind in the timber.

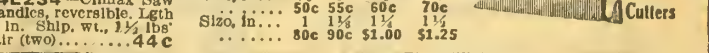
| Length, feet | 5 | 5 1/2 | 6 | 6 1/2 |
|-----------------------|--------|--------|--------|--------|
| Shipping weight, lbs. | 5 | 6 | 7 | 8 |
| | \$3.75 | \$4.15 | \$4.45 | \$4.88 |



One Man Saw Handle

84 E 238—Supplementary Handles for one man crosscut saws. Length, 6 1/2 inches. Shipping weight, 6 ounces.

| Size, in. | 1 1/2 | 1 3/4 | 2 | 2 1/4 |
|-----------|-------|-------|------|-------|
| Price | 50c | 55c | 60c | 70c |
| | 80c | 90c | 1.00 | 1.25 |

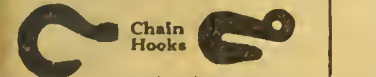


Mixer's Saw Gummer

184 E 290—Mixer's Self-Feed Automatic Saw Gummer, for large crosscut saws. Will cut the teeth at any desired angle, and has a positive automatic self feed. We include with each machine steel arbor and three steel cutters: one each, 3/4, 1/2 and 1 inch. Shipping weight, 32 pounds.

84 E 291—Extra cutters for Mixer's Gummer cutters. Sizes 1/2 and 3/4 have 1/2-inch hole. The larger sizes have 1/2-inch hole, which is the standard size for our regular arbor, as sent with the gummer unless otherwise ordered. Shipping weight, 2 to 7 ounces.

| Size, in. | 1/2 | 3/4 | 1 | 1 1/4 |
|-----------|-----|-----|------|-------|
| Price | 50c | 55c | 60c | 70c |
| | 80c | 90c | 1.00 | 1.25 |



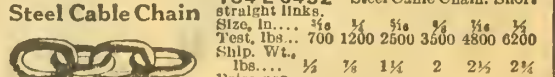
| 34 E 6435—Round Chain Hooks. Forged iron. Ship. wt., 1/2 to 1 lb. | | 84 E 6436—Grab Chain Hooks. Forged iron. Ship. wt., 1/2 to 1 lb. | |
|---|-----|--|-----|
| For Chain | 10c | For Chain | 10c |
| 1/2 in. | 13c | 1/2 in. | 13c |
| 3/4 in. | 23c | 3/4 in. | 23c |
| 1 in. | 28c | 1 in. | 28c |
| 1 1/2 in. | 32c | 1 1/2 in. | 32c |



Tested Steel Log Chains

| 484 E 6430—Total length, 14 feet. Steel swivel in center and heavy grab and round hook. | | SIZES, INCHES | |
|---|--------|---------------|------|
| Size, inches | 1200 | 2500 | 3500 |
| Proof Test, pounds | 10 1/2 | 16 1/2 | 23 |
| Shipping weights, pounds | 1.58 | 2.33 | 2.85 |
| | | | 5.25 |

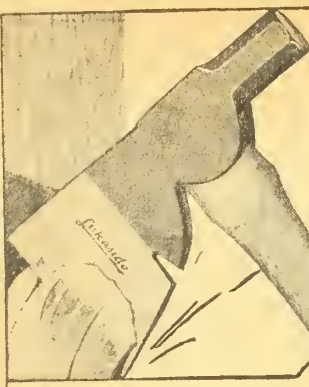
Size is diameter of rod from which chain is made. Safe working load one-half of proof test shown above, breaking strain is double proof test.



| Steel Cable Chain | | Wrought Repair Links | |
|-------------------|-------|----------------------|---------|
| Size, in. | 3/8 | 3/8 | 3/8 |
| Test, lbs. | 700 | 1200 | 2500 |
| Ship. Wt., lbs. | 1 1/2 | 2 1/2 | 2 1/2 |
| Price per ft. | 7c | 12 1/2c | 14 1/2c |

| 84 E 6438—For connecting iron chain. Shipping weight, dozen 1/2 to 2 1/2 lbs. | | Per Dozen | |
|---|-----|-----------|-----|
| For. Chain, inches | 3/8 | 15c | 15c |
| | 1/2 | 16c | 16c |
| | 3/4 | 25c | 25c |
| | 1 | 37c | 37c |

A Satisfactory Job Always With Lakeside Tools



Lakeside Half Hatchet

Polished and Bronzed Finish

84 E 1658—Best forged crucible steel bit holds its keen edge. Most popular pattern hatchet for general use. Bronzed finish. Perfect hang, correct grip. Extra quality white hickory handle. Shipping weight, 2 pounds.

| Size | Weight of Head | Width Bit | Each |
|------|----------------|-----------|--------|
| 1 | 1 lb. | 3 1/4 in. | \$1.15 |
| 2 | 1 lb. 5 oz. | 3 3/4 in. | 1.25 |

Standard Half Hatchet



84 E 1669—Crucible steel. Shipping weight 2 pounds. Black finish. Size 2. Width of bit, 3 3/4 inches. Weight head, 1 pound 2 ounces.

Lakeside Shingling Hatchet



84 E 1640—Extra forged steel. Polished and bronzed finish. Shipping weight, 1 1/2 to 2 1/2 pounds. Size 1. Width, hlt, 3 1/4 inches. Weight head, 17 ounces.

Lake- side Claw Hatchet



84 E 1648—Forge crucible steel Hickory handle. Shipping weight, about 2 1/2 to 3 1/2 pounds. Size 1. Width of bit, 3 1/4 inches. Weight of head, 1 1/4 pounds.

Lake- side Lath Hatchet



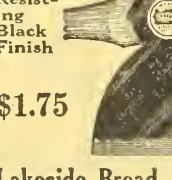
Extra quality solid steel lath hatchets. Thin blades, full grip, handles. Shipping weight, about 2 pounds. Full polished.

Rust Resist- ing Black Finish



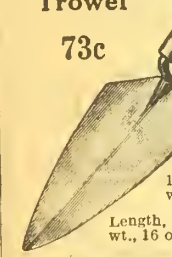
84 E 1656—Haines pattern, adze eye, round head, solid steel. Thin blade, full polished hickory handle. Shipping weight, about 2 1/2 pounds. Size 1. Width of bit, 3 1/4 inches. Weight of head, 14 ounces.

Lakeside Broad Hatchet



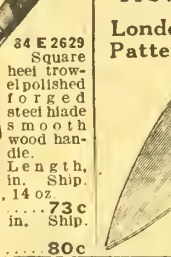
84 E 1650—Best forged steel bit holds its keen edge. Large hammer head. Smooth black finish. Perfect hang, correct grip. Extra quality white hickory handle. Shipping weight, 3 to 4 lbs.

Brick Trowel



84 E 2629—Square heel trowel, polished forged steel blade, smooth wood handle. Length, 10 in. Ship. wt., 14 oz.

Brick Trowel



84 E 2628—Round heel trowel, polished forged steel blade, smooth wood handle. Length, 10 in. Ship. wt., 14 oz.

Standard Pointing Trowels



84 E 2642—Polished forged steel blade, with smooth hardwood handle. Shipping weight, 6 to 10 ounces. Length, inches.

Tuck Pointing Tool



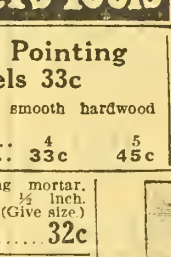
84 E 2654—For pointing mortar. Face, 3/8, 1/2, 3/4, 1, 1 1/2, 2, 3, 4 or 5 in. Shipping weight, 6 ounces. (Give size.)

Standard Plastering Trowels



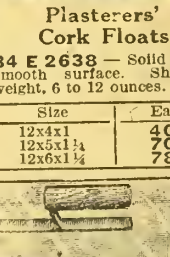
84 E 2634—Good grade forged steel, finely finished with wood handle. Shipping weight, 2 pounds. Length, inches.

Lakeside Plastering Trowels



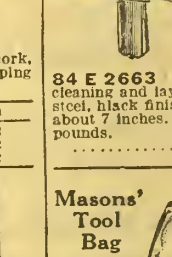
84 E 2632—Lakeside trowels are correctly shaped and hang perfectly. Large wood grip and forged blade of finely polished steel. (Give size.) Shipping weight, 2 pounds.

Plasterers' Cork Floats



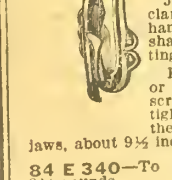
84 E 2638—Solid cork, smooth surface. Shipping weight, 6 to 12 ounces.

Brick Hammer



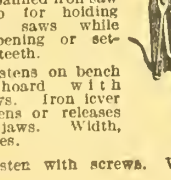
84 E 2663—For breaking, cleaning and laying bricks. Forged steel, black finish. Length of head, about 7 inches. Shipping weight, 2 pounds.

Roughing Rollers



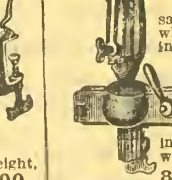
84 E 2702—Nicely finished. Size, 3 1/4 x 10 inches. With handle. Shipping weight, 11 pounds.

Sidewalk Edgers



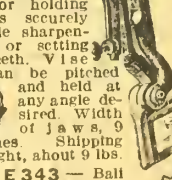
84 E 2686—Curved at ends. Nickel-plated iron. Size, 6x2 1/4 in. Weight, 18 oz.

Sidewalk Groovers



84 E 2680—Curved ends. Nickel-plated iron. Size, 5 1/2 x 2 inches. Ship. wt., 1 1/2 lbs.

Saw Vises



For holding saws securely while sharpening or setting teeth. Vise can be pitched and held at any angle desired. Width of jaws, 9 inches. Shipping weight, about 9 lbs.

Saw Vise



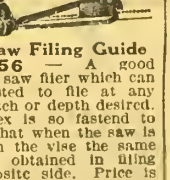
84 E 349—For securely holding hand saws while filing or setting teeth. Made entirely of wrought steel; quick acting lever clamp. Japanned and nickel finish. Width 12 inches. Rubber inserted jaw prevents noise and vibration. Shipping weight, 3 pounds.

Saw Filing Guide



84 E 356—A good practical saw filing guide which can be adjusted to file at any angle, pitch or depth desired. The index is so fastened to the bar that when the saw is turned in the vise the same angle is obtained in filing the opposite side. Price is for guide and file only (vise is not included). Shipping weight, 2 1/4 pounds.

Saw Filer



84 E 354—A combined saw clamp and filing guide which makes accurate saw filing easy even for a novice, and is a great help to the expert mechanic. The clamps hold the saw firmly at any convenient angle. The guide holds the file in proper position so that all of the teeth are filed uniformly and accurately. The rubber faced jaws prevent noise and vibration. Width of jaws, 10 1/2 inches, with 16-inch steel guide bar. Complete with one file and simple directions. Ship. wt., 11 lbs.

Squares, Levels, Gauges and Rules

Solid Cherry Level

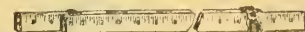
\$1¹⁵

Important Note

The Merchandise Listed on this page is of Highest Quality, and is guaranteed to be accurate and perfect in every way.

95c

Stanley Extension Rules



84 E 1845—Hard maple, 1 inch wide. Spaced in 8ths. Brass trimmed. Sections secured by set screw. Shipping weight, 1 to 3 pounds.

| Size | Ship. wt. | Each |
|-------------|-----------|--------|
| 2 to 4 ft. | 1 pound | \$.95 |
| 4 to 8 ft. | 2 pounds | 1.25 |
| 8 to 10 ft. | 3 pounds | 1.55 |

Three-Ply Cherry Level

84 E 2062—Made of three pieces of seasoned cherry, glued together and will not warp. Brass arch top plate, two side views. Adjustable. Both ends are brass tipped. Length, inches..... 26" 28" 30" Shipping weight, pounds..... 3 3 1/2 4 (give size) \$1.95 \$2.15 \$2.35

Cherry Adjustable Level

(as illustrated above)

84 E 2064—A high-grade, first class level, made of polished cherry. Brass arch top plate, two side views, both ends are brass tipped. Proved level glasses. Adjustable.

| Shipping Lgh. Weight | Price |
|----------------------|--------|
| Ins. Pounds. Each | |
| 24 3 | \$1.85 |
| 26 3 1/2 | 1.95 |
| 28 3 1/2 | 2.15 |
| 30 4 | 2.35 |

(Give size)

Masons' Wood Level

84 E 2082—Mahogany finish, light, and easy to handle, with double plumb brass top plate, low cut side views; adjustable level and plumb, selected glasses. Length, 42 inches. Shipping weight, 3 pounds. \$2.55



Aluminum Level

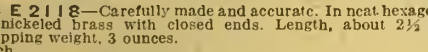
84 E 2092—Accurate, light and strong. Cast aluminum, with faces and edges accurately milled. Grooved sides. Will not rust or warp. Sensitive level protected with round aluminum disc. Level and plumb adjustable. Length, inches..... 18" 24" 28" Shipping weight, pounds..... 2 1/2 3 1/2 3 1/2 \$3.75 \$4.28 \$4.95



Iron Bench Level

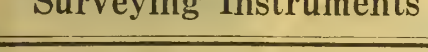
84 E 2096—With double plumb, proved level glasses, milled faces, japanned body. Light, strong, accurate.

| Length | Ship. Wt. | Each |
|-----------|--------------|--------|
| 6 inches | 1 pounds | \$1.63 |
| 18 inches | 3 1/2 pounds | 3.30 |
| 24 inches | 4 1/2 pounds | 3.95 |



Nickel Pocket Level

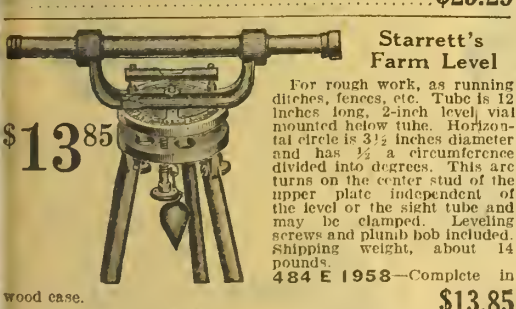
84 E 2118—Carefully made and accurate. In neat hexagon tube, of nickel plated brass with closed ends. Length, about 2 1/2 inches. Shipping weight, 3 ounces. 55c



Surveying Instruments

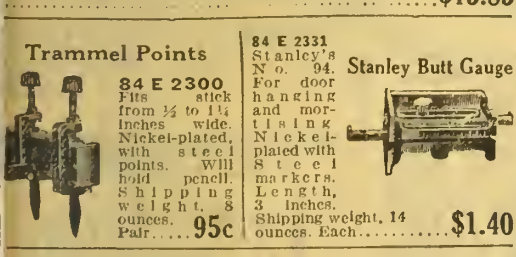
Drainage Farm Level with Rod

84 E 1951—F O R farm land, drainage ditches, etc. 10 1/2-inch telescope, magnifying about ten times, with cross-hairs, 2 1/2-inch level in tube. Has 4-inch horizontal circle graduated to degrees with index arm. With plumb, bob key for center, wood leveling rod, strong hardwood tripod. Leveling rod is 5 feet long, extending to 9 1/2 feet, divided into 1/2 inches. Shipping weight, about 10 pounds. \$23.25



Starrett's Farm Level

For rough work, as running ditches, fences, etc. Tube is 12 inches long, 2-inch level vial mounted below tube. Horizontal circle is 3 1/2 inches diameter and has 1/2 a circumference divided into degrees. This is turned on the center stud of the upper plate independent of the level or the sight tube and may be clamped. Leveling screws and plumb bob included. Shipping weight, about 14 pounds. 484 E 1958—Complete in wood case. \$13.85



Trammel Points

84 E 2300—Fits stick from 1/2 to 1 1/4 inches wide. Nickel-plated, with steel points. Will hold pencil. Shipping weight, 8 ounces. 95c

Stanley Butt Gauge

84 E 2331—Stanley's No. 94. For door hanging and mortising. Nickel-plated with steel points. Will hold pencil. Shipping weight, 14 ounces. Each. \$1.40

Brass Plumb Bob

84 E 2134—Polished solid brass. Steel point. Shipping weight, 1/2 to 2 pounds.

| Wt. Oz. | Lgh. In. | Each |
|----------|----------|--------|
| 8 4 1/2 | | \$1.48 |
| 20 6 1/2 | | 2.80 |

Hexagon Plumb Bob

Solid Steel, nickel plated. Sharp point. Brass top screw. Shipping weight, 1 and 1 1/2 pounds.

| Each |
|--|
| 84 E 2142—Length, 3 1/2 inches. Weight, 8 ounces. 65c |
| 84 E 2143—Length, 3 1/2 inches. Weight, 12 ounces. 80c |

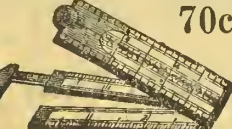
Zig-Zag Rules

Hardwood 1/2 inch wide, metal tips, yellow or white. Steel spring joints hold rule straight. Spaced 16ths inch. Length, feet..... 4 6 8 Length, feet..... 4 6 8 Ship. wt. oz..... 5 7 9 Ship. wt. oz..... 5 7 9 84 E 1840 Yellow. 32c 48c 64c 84 E 1841 White. 34c 52c 68c

84 E 1842—4 feet..... \$1.35 6 feet..... \$1.95

Caliper Rules

84 E 1822—Boxwood Caliper Rule. Length, 1 foot, arch joints, 4-fold, spaced in 8ths, 10ths, 12ths and 16ths. Width, 1/4 inches. Shipping weight, 4 ounces. 70c



Marking Gauge

(as illustrated above)

84 E 2325—With brass screw and face. Length, 8 1/2 inches. Shipping weight, 8 ounces. 68c

84 E 2324—Beechwood Marking Gauge. Length, 8 1/2 inches. Shipping weight, 8 ounces. 17c

2-Foot Boxwood Rules



84 E 1804—Factory No. 62. Width, 1 inch. Length, 2 feet, 4-fold double Brass bound. Marked in 8ths, 10ths, 12ths, 16ths of inch. Shipping weight, 5 ounces. 77c

84 E 1805—Factory No. 62 1/2. Same as above but 1/2 inch wide. 77c

84 E 1800—Factory No. 68. Two foot 4-fold, 1 inch wide, rounded joints, middle hinge plates; marked in 8ths and 16ths. Shipping weight, 4 ounces. Each. 16c

84 E 1801—Factory No. 63. Same as above with square joint edge. Shipping weight, 4 ounces. 38c

Standard Steel Squares

(Illustration shows our No. 84 E 1875)

Strictly high-grade, well finished and accurate. The "face" of a square is the side upon which the brand is stamped; the larger arm is the "body" and the shorter arm is the "tongue". Shipping weights on squares from 2 to 3 pounds.

84 E 1870—Steel Squares, No. 14. Polished. Size of body, 2 1/2 inches; size of tongue, 16x1 1/2 inches. Spaced face 1/2, 1/4 inch; back, 1/4, 1 inch. Essex Board Measure. Weight, 1 1/4 pounds. \$1.62

84 E 1871—Steel Square, No. 2. Polished. Size of body, 2 1/2 inches; size of tongue, 16x1 1/2 inches. Spaced face, 1/2, 1 inch; back, 1/2, 1/4 inch. Brace Measure and Essex's Board Measure. Weight, 2 1/4 pounds. \$1.85

84 E 1874—Steel Square, No. 3B. Blued. A rich blue color, with enameled graduations, otherwise, the same description as No. 3, with 16x1 1/2 inch tongue. Weight, 2 1/2 pounds. \$1.95

84 E 1875—Steel Square, No. 100. Polished. Size of body, 2 1/2 inches; size of tongue, 16x1 1/2 inches. Spaced face, 1/2, 1/4 inch; back, 1/2, 100's 1/2, 1/4, 1/16 inch. Brace Measure. 8 square and Essex's Board Measure. Weight, 2 1/4 pounds. \$1.84

84 E 1879—Steel Square, No. 100C. Royal Copper Finish. Anti-rusting, with white enameled figures and graduations, otherwise the same description as No. 100. Weight, 2 1/4 pounds. \$2.69

Latest Improved Rafter Square

Everything worked out. Gives lengths of Common Rafter: Hip, Valley, Jack and Cripple Rafter: also all top, bottom and side cuts. Has a 1 1/2-inch tongue, to conform to the substitution of 3x12, scolding for the 2x4. Patented table for Hip, Valley, Jack and Cripple Rafter and for common rafters. Table for the common polygon, and standard brace measure. Complete directions. Ship. wt., 2 1/2 lbs. Body, 24x2. Tongue, 16x1 1/2 in. \$2.55

84 E 1895—No. 500R Polished Steel. Spaced 1/2, 1/4, 1/8, 1/16, 1/32 in. \$2.55

84 E 1894—No. 500CR Royal Copper Finish. Spaced, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64 in. \$3.45

Stanley Rafter Square

84 E 1896—No. R100B Blued Finish. Has Rafter, Brace, Octagon, Essex Board and 100th measure. Marked 1/2, 1/4, 1/8, 1/16, 1/32, 1/64, 1/128 in. Body, 24x2. Tongue, 16x1 1/2. Wt., 2 lbs. \$3.15

Take Down Rafter Square

Take-apart-Joint consists of a tapering dovetail tongue and groove, pulled tight by turning a small slotted cam. New Rafter Table shows 16 different measures for the following: Length of common rafter, per foot run; length of Hip or Valley rafter, per foot run; difference in length of Jacks, 16-inch centers; difference in length of Jacks, 2-ft. centers; side cut of Jack; side cuts of Hip or Valley rafter; side cut of sheathing in Valley or Hip; Body is 24x2 in. Tongue, 16x1 1/2 in. Spaced, 8ths, 10ths, 12ths, 16ths, 32ds. Has Essex Board Measure, Octagon Scale, Brace Measure and Improved Rafter Scale. Ship. wt., 3 lbs. 84 E 1898—Royal Copper Finish; white enamel markings. With water-proof case. \$3.55

Sliding T Bevels

84 E 1926—For gauging bevels and angles on woodwork. Steel blade hard-wood handle, brass mounted. Recessed screw. Shipping weight, 6 to 12 ounces. Sizes, inches..... 6 10 40c 48c

T Bevel

84 E 1930—For gauging bevels and angles on wood work. Nickel plated. Iron and steel. Lays flat. Best grade. Ship. wt. 10 to 18 oz. Size inches 6 8 69c 93c

Fox Steel Combination Square

84 E 1920—All steel nickel plated. 10x7 inches. Shipping weight, 12 ounces. 65c

Try and Mitre Square

84 E 1916—Polished hardwood handle, brass trimmings. Graduated steel blade. Shipping weight, 6 to 14 ounces. Size, inches..... 6 60c 7 1/2 9 70c 8 85c

Try Square

84 E 1910—Hardwood handle, brass faced. Graduated blade. Ship. wt. 8 to 12 oz. 4 1/2 in. 42c 6 in. 50c 7 1/2 in. 55c

Combination Caliper Rule

Caliper, protractor, try square and hook rule, 16ths and 32nds. Protractor vernier to one-half degrees, rust resisting white metal. In neat pocket case. Shipping weight, 2 and 4 ounces. 84 E 1830—Length, 6 inches. \$2.20

84 E 1831—Length, 12 inches. \$3.30

Three-Foot Rule

84 E 1817—Width, 1 inch. Length, 3 feet. Spaced 16ths and 8ths, 1 inch. Shipping weight, 4 ounces. 55c

Standard Log Rules

Second growth hickory, shaped by hand. Will retain their flexibility. To scale logs 8 to 20 feet long. Figures are burned in. With 6-inch handle. Shipping weight, 1 to 2 pounds. 484 E 1848—Log Rule, 48 inches. Square head; Scribner's scale. \$2.55

484 E 1849—Same with Doyle Scale. 2.55

Hickory Board Rule

84 E 1852—Size, 3 tier, 3 feet long. Extra heavy brazed head. To measure, 8, 10, 18 feet on one side, and 12, 14, 16 feet on the other side. Shipping weight, 1 pound. \$2.35

Perfected Steel Square Key

84 E 1902—This outfit enables amateurs to perform any work with the square and even experienced carpenters find it very convenient. Consists of a 3-inch Safety Computing Dial, and Book of Clear Instructions contained in a handsome Leather Pocket Case. Shipping weight, 4 ounces. 98c

Tape Lines

Surveyors' Steel Tape

Polished blue steel ribbon correctly tempered. Width, 1/4 inch. Thickness, .015 inch. Length, 100 feet, graduated each foot, first foot in 1/40. Numbered with plain figures on a raised extra thickness of steel. 84 E 2030—With steel reel, and hardwood handle as shown. Shipping weight, 2 1/2 pounds. \$8.10

84 E 2031—Without reel. Shipping weight, 1 1/2 pounds. \$5.40

Enameled Cast Tapes

84 E 2042—Has stop and automatic release by pressing button. Flat metal case. 1 1/2-inch wide. Marked in feet and inches. Size Feet Ship. Wt. oz. Price Each 50 8 \$.59 75 10 .90 100 12 1.10

Steel Pocket Tape Line

84 E 2050—With spring and stop. Automatic release by pressing button. Flat metal case. Nickel-plated. Divided into inches and 16ths. Shipping weight, 5 ounces. Feet Width Each 3 1/4 inch \$.79 6 1/4 inch 1.10

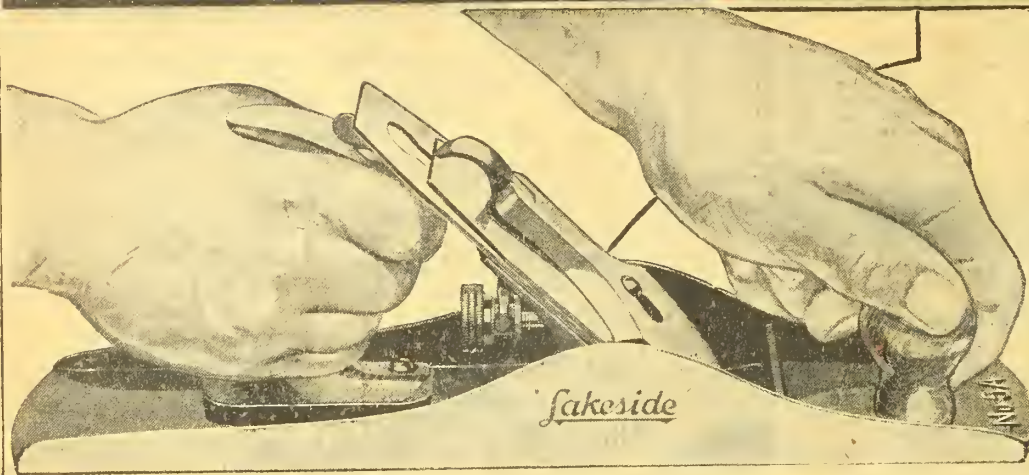
Corded Tape

84 E 2044—Stitched leather case. Heavy linen corded tape 1/2 inch wide. Marked in feet and inches. Size Feet Ship. wt. oz. Price Each 50 10 \$2.25 75 12 2.65 100 14 2.75

Surveyors' Tapes

84 E 2038—Steel Tapes, 1/2 inch wide. In leather case. Nickel-plated trimmings. Accurately marked in feet, inches, and eighth of inches. Shipping weight, 10 to 24 ounces. Size Feet Each 25 \$4.20 50 5.15 75 6.74 100 8.75

For Best Results - Lakeside Planes



Accurately Tempered to Hold Their Edge **\$2.80**

Lakeside Planes are of the very highest grade, with bottoms and sides accurately ground and polished, guaranteed true. Cutters are made heavy to prevent chattering when planing rough lumber or knots and accurately tempered to hold their keen edge and sharpen easily on an oil stone or grinder. Improved thumb nut adjustment in rear, raises or lowers the cutter without removing it from its place. The lever below under cutter moves it parallel with face of plane. Frame is of heavy Japanned iron, polished sides and bottom with a strong iron cap. Handle and knob close-grained hardwood, rosewood finish. We list both grooved and smooth bottom.

ment in rear, raises or lowers the cutter without removing it from its place. The lever below under cutter moves it parallel with face of plane. Frame is of heavy Japanned iron, polished sides and bottom with a strong iron cap. Handle and knob close-grained hardwood, rosewood finish. We list both grooved and smooth bottom.

| Style of Plane | Length | Width of Cutter | Shipping weight | Smooth Bottom | Each | Grooved Bottom | Each |
|--------------------|--------------|-----------------|-----------------|---------------|--------|----------------|--------|
| Smooth Style 3 | 8 1/2 Inches | 1 1/2 Inches | 4 1/2 Pounds | 84 E 441 | \$2.80 | 84 E 451 | \$3.30 |
| Smooth Style 4 | 9 Inches | 2 Inches | 4 3/4 Pounds | 84 E 442 | \$3.00 | 84 E 452 | \$3.50 |
| Smooth Style 4 1/2 | 10 Inches | 2 1/2 Inches | 6 Pounds | 84 E 443 | \$3.55 | 84 E 453 | \$4.05 |
| Jack Style 5 | 14 Inches | 2 1/2 Inches | 5 3/4 Pounds | 84 E 444 | \$3.60 | 84 E 454 | \$4.10 |
| Jack Style 5A | 15 Inches | 2 1/2 Inches | 7 1/4 Pounds | 84 E 445 | \$4.08 | 84 E 455 | \$4.58 |
| Fore Style 6 | 18 Inches | 2 3/4 Inches | 8 1/4 Pounds | 84 E 446 | \$4.28 | 84 E 456 | \$4.78 |
| Jointer Style 7 | 22 Inches | 2 3/4 Inches | 9 1/4 Pounds | 84 E 447 | \$4.58 | 84 E 457 | \$5.08 |
| Jointer Style 8 | 24 Inches | 2 3/4 Inches | 10 1/4 Pounds | 84 E 448 | \$4.78 | 84 E 458 | \$5.28 |



Genuine Stanley Gage Self Setting Plane \$3.78

A popular plane with rigid self-setting cutter that will not chatter. Easily adjusted for fine or coarse work.

Made of beech wood, with an iron throat, adjustable for wear. Ship. wt., 4 1/2 to 7 lbs.

| Number | Size | Length | Cutter | Each |
|----------|------|--------|-----------|--------|
| 84 E 502 | 2 | 10 in. | 1 1/2 in. | \$3.78 |
| 84 E 503 | 3 | 10 in. | 2 in. | 4.05 |
| 84 E 504 | 9 | 14 in. | 2 in. | 4.36 |
| 84 E 505 | 14 | 18 in. | 2 1/2 in. | 4.99 |
| 84 E 506 | 17 | 22 in. | 2 1/2 in. | 5.35 |

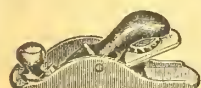
We Always Fill Orders for STANLEY and LAKESIDE Planes at the Lowest Prices

As we go to press our prices on Stanley and Lakeside planes are the lowest in the present market.

However, if there should be any declines in the manufacturers' prices, during the life of this catalog, we will lower our prices immediately.

When you send us your order we will fill it at the lowest prices, always.

Lakeside and Stanley Block Planes



84 E 586 - Lakeside Iron Block Plane. Style 102. Japanned finish. Steel cutter with screw adjustment under cap. Length, 5 1/2 inches. Width, 1 1/2 inches. Shipping weight, 1 1/2 pounds. **\$1.25**



84 E 578 - Lakeside Block Plane. Style 227. Japanned finish. Length, 7 inches. Steel cutter has screw adjustment. Width, 1 1/2 inches. Shipping weight, 2 1/2 pounds. **\$1.65**



84 E 542 - Lakeside Adjustable Block Plane. Style 9 1/2. An exceptionally handy plane because it can be used on fine or coarse work. Japanned trimmings. Length, 6 1/2 inches. Improved Throat Adjustment. Steel cutter finely tempered. Shipping weight, 2 1/2 pounds. **\$1.89**



The nickel-plated **Knuckle Joint** in the Cap is a lever which clamps the cutter in position. Steel cutter, 1 1/2 inches. Shipping weight, 2 1/2 pounds. **\$2.70**
84 E 554 - Stanley, Style 13. Length, 7 inches. **\$2.80**
84 E 543 - Lakeside Style 13B. Length, 6 1/2 inches. Cutter, 1 1/2 inches. **\$1.89**



84 E 574 - Lakeside Double End Block Plane. Japanned. Length 8 inches. Two cutter seats. In reverse position, it can plane close into corners. Width, 1 1/2 inches. Shipping weight, 2 1/2 pounds. **\$1.20**



84 E 558 - Lakeside Low Angle Block Plane. Style 55. Japanned trimmings, length 6 inches. Cutter fixed at a low angle, so it will work smoothly across grain, without chattering. Has all improved adjustment. Cutter, 1 1/2 inches wide. Shipping weight, 2 1/2 pounds. **\$1.70**



84 E 659 - Stanley Style 190 Rabbit Plane. Length, 8 inches. 1 1/2-in. steel cutter. Shipping weight, 3 1/2 pounds. **\$2.80**



84 E 656 - Stanley Rabbit Plane and Filler. Style 78. Iron Plane. Length, 8 1/2 inches. 1 1/2-in. Steel Cutter. Shipping weight, 4 1/2 pounds. **\$3.10**



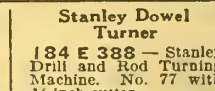
No. 680 Closed Throat
 For smoothing the bottom of groove, or other depressions parallel with surface of the work, also to rout out mortises for sash frame pulleys, etc. Made of iron nickel-plated with 2 tool steel cutters, 1 1/2 and 1 inch. Hardwood handles. Length 7 1/2 inches. Shipping weight, about 3 1/2 pounds. **\$3.40**
84 E 680 - Closed throat. Set. **\$3.40**
84 E 681 - Open throat. Set. **4.30**



84 E 714 - Gauge for Iron Planes. Stanley's Style 386. For accurately planing bevels between 30 and 90 degrees. Shipping weight 2 1/2 pounds. **\$2.25** (Plane not included.)



84 E 390 - Bench Stop For holding boards while planing. Reversible steel plate may be raised to 1 1/2 inches. Shipping weight, 12 oz. **65c**



84 E 642 - The steel face is flexible and adjustable by means of knob at end of stock, so concave or convex surfaces can be worked as easily as straight ones. Width of steel cutter, 1 1/2 inches. Shipping weight, 4 1/2 pounds. **\$7.05**



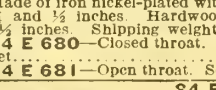
184 E 388 - Stanley Drill and Rod Turning Machine. No. 77 with 1/2-inch cutter. Cuts wood dowels different sizes and lengths to perfect dimensions. Ready made dowels are apt to warp and shrink. Cutters are adjustable to match tight or loose fit. Shipping weight 10 pounds. **\$10.75**



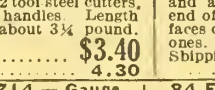
Lakeside Tonguing and Grooving Plane. Fence acts as guide for grooving match for tongue. Two steel cutters. Nickel-plated. Shipping weight, 3 1/2 pounds. **84 E 668 - For 3/4 to 1 1/4 boards. \$3.95**
84 E 669 - For 3/4 to 3/8 boards. \$3.95



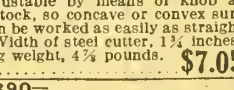
Stanley Scrub Plane. Single steel cutter. For roughing down work before using another plane. Shipping weight, 3 1/2 pounds. **84 E 652 - 9 1/2 inches long. 1 1/2-inch cutter. \$2.10**
84 E 653 - 10 1/2 inches long. 1 1/2-inch cutter. \$2.80



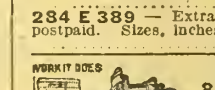
Stanley's No. 45 Combination Plane
84 E 695 - Stanley, Style 45. Combines seven tools in one. Fitted with an adjustable fence, a depth gauge, and spurs. Each plane is accompanied by seven beading tools (1/4, 3/16, 1/8, 5/16, 3/8, 1/2, and 5/8 inch); ten plow and dado bits (1/4, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch); a shingling tool, 1 1/2 inch; and Filister Cutter, 1 1/2 inch. Shipping weight, 9 1/2 pounds. Nickel-plated finish. Complete directions. Set (with 21 tools). **\$12.48**



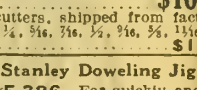
84 E 702 - Stanley's Style 55 Universal Plane. All iron parts nickel-plated, handle and fences of selected hardwood (52 steel cutters). Shipping weight, 15 1/2 pounds. **\$24.40**
 Set. This plane takes the place of a full assortment of so-called fancy planes. Practically any style of molding can be made. The body of the plane is equipped with guides, adjustments, screws, stops, gauges and everything necessary to correctly guide and safeguard your work. 52 cutters included in set with book of instructions.



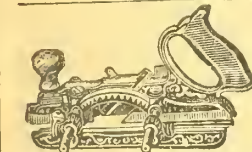
Stanley Dowel Turner
184 E 388 - Stanley Drill and Rod Turning Machine. No. 77 with 1/2-inch cutter. Cuts wood dowels different sizes and lengths to perfect dimensions. Ready made dowels are apt to warp and shrink. Cutters are adjustable to match tight or loose fit. Shipping weight 10 pounds. **\$10.75**
284 E 389 - Extra cutters, shipped from factory postpaid. Sizes, inches. 1/4, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch. One each. **\$1.10**



Stanley Doweling Jig
84 E 386 - For quickly and accurately boring Dowel Holes edge, end or surface of wood. Capacity up to 3 inches. A good bit guide for mortising. With five steel guides, 1/4, 3/8, 1/2, 5/8, and 3/4 inch. One each. **\$1.10**
 gauge. Made entirely of metal. Nickel-plated. Shipping weight, 1 1/2 pounds. **\$2.80**

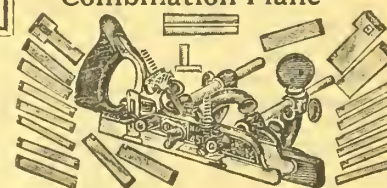


Stanley Combination Plane No. 50 With 15 Cutters
84 E 672 - Made of iron. Nickel-plated with 15 tool steel cutters. Plane, 9 1/2 inches. Combined Beading, Matching, Dado, and Plow Plane. Consists of a main stock with spur and depth gauge. A sliding section with spur and fence with a 5-inch adjustable. Complete with 7 plow and dado bits, 1/4, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch. Beading cutters, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch. One pair 1/2-inch matching cutters. Shipping weight, 5 pounds. Set, complete. **\$7.00**

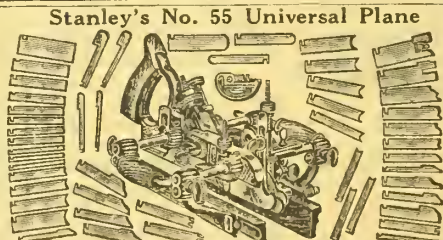


Stanley Traut Adjustable Plow

84 E 665 - Dado and Filister Plane. Nickel-plated iron frame. Tool steel cutters. Length, 10 inches. Shipping weight, 6 pounds. **\$9.75**
 Set consists of: A main stock and sliding section. Adjustable fence and guide, depth gauge, spurs for working across grain. Eight plow and dado bits, 1/4, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch. A 1 1/2-inch Filister cutter; shingling tool; 1 1/2-inch tonguing tool. Shipping weight, 2 pounds



84 E 695 - Stanley, Style 45. Combines seven tools in one. Fitted with an adjustable fence, a depth gauge, and spurs. Each plane is accompanied by seven beading tools (1/4, 3/16, 1/8, 5/16, 3/8, 1/2, and 5/8 inch); ten plow and dado bits (1/4, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch); a shingling tool, 1 1/2 inch; and Filister Cutter, 1 1/2 inch. Shipping weight, 9 1/2 pounds. Nickel-plated finish. Complete directions. Set (with 21 tools). **\$12.48**

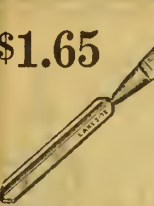


84 E 702 - Stanley's Style 55 Universal Plane. All iron parts nickel-plated, handle and fences of selected hardwood (52 steel cutters). Shipping weight, 15 1/2 pounds. **\$24.40**
 Set. This plane takes the place of a full assortment of so-called fancy planes. Practically any style of molding can be made. The body of the plane is equipped with guides, adjustments, screws, stops, gauges and everything necessary to correctly guide and safeguard your work. 52 cutters included in set with book of instructions.



84 E 672 - Made of iron. Nickel-plated with 15 tool steel cutters. Plane, 9 1/2 inches. Combined Beading, Matching, Dado, and Plow Plane. Consists of a main stock with spur and depth gauge. A sliding section with spur and fence with a 5-inch adjustable. Complete with 7 plow and dado bits, 1/4, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch. Beading cutters, 3/16, 1/8, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch. One pair 1/2-inch matching cutters. Shipping weight, 5 pounds. Set, complete. **\$7.00**

Lakeside Razor Edge Chisels



Corner Chisel


84 E 828—High-grade steel, length of blade about 8 inches, with hickory socket handle, iron ferrule. A reliable well made tool for finishing out corners smoothly.

| | |
|-----------------|--------|
| Size, inches | 3/4 |
| Ship. wt., lbs. | 1 1/2 |
| Each | \$1.65 |

Size, inches 1

Ship. wt., lbs. 2

Each \$1.75

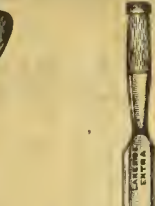


Gouge

84 E 841—Lakeside gouges with tang, length of blade, about 4 inches. Tempered, polished, and sharpened. Hickory handles. Shipping weight 5 to 10 ounces.

| | | |
|-----------|-------|-----|
| Size, in. | 1 1/4 | 3/4 |
| Each | 44c | 47c |

Size, in. 5/8 50c | 58c || Size, in. 3/4 | 56c | 78c |




Framing Chisel

84 E 825—Beveled edges. Fast cutters. Finest quality steel, correctly tempered and finished. Hickory handle, iron ferrule. Length blade, about 8 inches. Shipping weight, 1 to 2 pounds.

| | | | |
|-----------|-------|-----|-------|
| Size, in. | 1 1/4 | 3/4 | 1 1/2 |
| Each | 69c | 72c | 80c |

Size, in. 1 3/4 85c | 90c | 98c || Size, in. 2 | 1 1/4 | 1 1/2 | 2 |
| Each | \$1.10 | \$1.25 | \$1.35 |




Butt Chisel

84 E 814—Preferred by many to the regular long blades. Beveled edges. Ground sharp. Leather top. Hickory handles. Length of blade, about 4 1/2 inches. Shipping weight, 4 to 20 ounces.

| | | | |
|-----------|-------|-----|-------|
| Size, in. | 1 1/4 | 3/4 | 1 1/2 |
| Each | 49c | 55c | 60c |

Size, in. 1 3/4 70c | 78c | 89c |

84 E 815—Set of Six Chisels. Shipping weight, per set, 3 1/2 pounds. Set \$3.98




Plain Edge Chisel

Best crucible tool steel, tempered by an improved process. Well finished, selected white hickory handle, full size 6-inch blade. Ground sharp.

84 E 804—Shipping weight, 5 to 25 ounces.

| | | | | |
|--------------|-------|-------|-----|-------|
| Size, inches | 1 1/4 | 1 1/2 | 3/4 | 1 1/2 |
| Each | 37c | 39c | 44c | 45c |


Size, inches 3/4 37c | 39c | 44c | 45c || Size, inches 1 1/4 | 48c | 52c | 59c | 63c |
| Size, inches 1 1/2 | 65c | 74c | | |



Chisel Handles

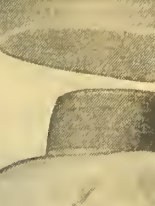
84 E 864—For socket firmer chisels. Leather tipped. Shipping weight, 4 ounces. Each.....12c

84 E 862—For Socket Framing Chisels. With heavy iron ferrule. Shipping weight, 4 ounces. Each.....7c



Lakeside Chisels

The Better Kind



Lakeside Chisel

49c and Up



Lakeside Carpenters' Slick

84 E 830—Extensively used by ship carpenters. Length of blade, about 10 inches. Has polished hardwood handle. Shipping weight, 4 1/2 to 7 pounds.

| | | |
|-------------------|--------|--------|
| Width, blade, in. | 2 1/4 | 3 |
| Each | \$2.48 | \$2.98 |

Width, blade, in. 3 3/4 \$3.50 | \$4.35 |



Lakeside Bevel Edge Chisels

Per Set of 6

84 E 811—Six Bevel Edge Chisels. One each 1/4, 1/2, 3/4, 1, 1 1/2 and 2 inches. White hickory handles, with leather tips. 6-inch blades ground sharp. In plain box. Shipping weight, 5 pounds. Set.....\$3.90



Chisel Handles

84 E 812—Twelve Bevel Edge Chisels. One each, 1/4, 1/2, 3/4, 1, 1 1/2, 1 3/4, 2, 2 1/2, 3, 3 1/2, and 4 inches. White hickory handles with leather tips. Shipping weight, 8 1/2 pounds. Set.....\$7.75

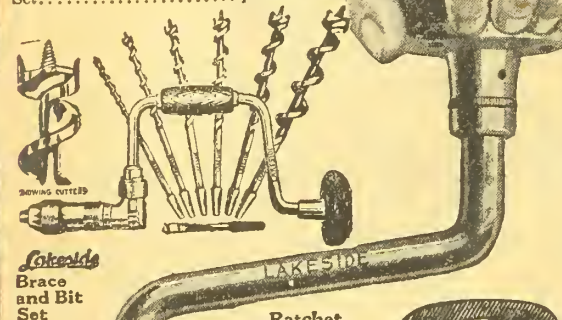


Stanley Chisel Set

84 E 818—Stanley No. 110—Blades of finest tool steel, 4 1/2 inches long. Carefully finished, perfectly tempered. Will take a keen edge and hold it. Sizes, 1/4, 1/2, 3/4, 1, 1 1/2, 1 3/4, 2, 2 1/2, 3, 3 1/2, 4, 4 1/2, 5, 5 1/2, 6, 6 1/2, 7, 7 1/2, 8, 8 1/2, 9, 9 1/2, 10, 10 1/2, 11, 11 1/2, 12, 12 1/2, 13, 13 1/2, 14, 14 1/2, 15, 15 1/2, 16, 16 1/2, 17, 17 1/2, 18, 18 1/2, 19, 19 1/2, 20, 20 1/2, 21, 21 1/2, 22, 22 1/2, 23, 23 1/2, 24, 24 1/2, 25, 25 1/2, 26, 26 1/2, 27, 27 1/2, 28, 28 1/2, 29, 29 1/2, 30, 30 1/2, 31, 31 1/2, 32, 32 1/2, 33, 33 1/2, 34, 34 1/2, 35, 35 1/2, 36, 36 1/2, 37, 37 1/2, 38, 38 1/2, 39, 39 1/2, 40, 40 1/2, 41, 41 1/2, 42, 42 1/2, 43, 43 1/2, 44, 44 1/2, 45, 45 1/2, 46, 46 1/2, 47, 47 1/2, 48, 48 1/2, 49, 49 1/2, 50, 50 1/2, 51, 51 1/2, 52, 52 1/2, 53, 53 1/2, 54, 54 1/2, 55, 55 1/2, 56, 56 1/2, 57, 57 1/2, 58, 58 1/2, 59, 59 1/2, 60, 60 1/2, 61, 61 1/2, 62, 62 1/2, 63, 63 1/2, 64, 64 1/2, 65, 65 1/2, 66, 66 1/2, 67, 67 1/2, 68, 68 1/2, 69, 69 1/2, 70, 70 1/2, 71, 71 1/2, 72, 72 1/2, 73, 73 1/2, 74, 74 1/2, 75, 75 1/2, 76, 76 1/2, 77, 77 1/2, 78, 78 1/2, 79, 79 1/2, 80, 80 1/2, 81, 81 1/2, 82, 82 1/2, 83, 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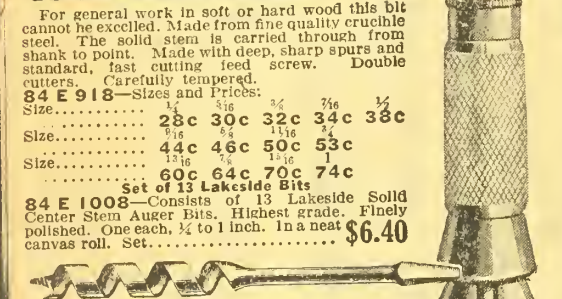
For Clean Cut Holes Lakeside Braces and Bits

84 E 992—Lakeside high-grade, nickel-plated Ratchet Brace, 10 inch sweep. 6 Solid Center Stem Auger Bits, and Screw Driver Bit. Auger Bits full polished. One each $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 inch. Also a Screw Driver Bit. Shipping weight, 4 pounds. Set.....\$4.48



Ratchet Brace
84 E 1230—Lakeside Improved Ratchet Bit Brace. Finely finished and nickel-plated. Hardwood head and handle. Ball bearing, metal clad head. Enclosed easy acting ratchet. Improved chuck with hard-wood ends and will hold any square shank bit, and up to $\frac{1}{2}$ -inch round shank drills. Heavy steel sweep. Size, inch. 8 10 12 14
Shp. wt. lb. 3 3 $\frac{1}{2}$ 4 4 $\frac{1}{2}$
.....\$2.85 \$3.48 \$3.75 \$3.95

Solid Center Auger Bit
84 E 1230
For general work in soft or hard wood this bit cannot be excelled. Made from fine quality crucible steel. The solid stem is carried through from shank to point. Made with deep, sharp spurs and standard, fast cutting feed screw. Double cutters. Carefully tempered.
84 E 918—Sizes and Prices:
Size..... 1 $\frac{1}{2}$ 2 2 $\frac{1}{2}$ 3 3 $\frac{1}{2}$ 4
..... 28c 30c 32c 34c 36c 38c
Size..... 4 $\frac{1}{2}$ 5 5 $\frac{1}{2}$ 6 6 $\frac{1}{2}$ 7
..... 44c 46c 50c 53c
Size..... 8 9 10 11 12 13
..... 60c 64c 70c 74c
Set of 13 Lakeside Bits
84 E 1008—Consists of 13 Lakeside Solid Center Stem Auger Bits. Highest grade. Finely polished. One each, $\frac{1}{4}$ to 1 inch. In a neat canvas roll. Set.....\$6.40



Single Twist Auger Bits
84 E 919—A very efficient style of bit for boring in any kind of wood. Cuts soft wood or hard wood smooth and clean. Made from the finest quality of crucible steel. The twist has correct pitch and clears easily. Made with single spur and single extension lip. Stand-ard, fast cutting feed screw. Carefully and accurately tempered. Finely polished and finished. Each bit is carefully tested to make certain that it will give you entire satisfaction. Shipping weight, 5 to 14 ounces.

| Inches | Each | Inches | Each |
|-------------------|------|-------------------|------|
| $\frac{1}{4}$ | 33c | $\frac{1}{2}$ | 52c |
| $\frac{3}{8}$ | 33c | $\frac{3}{4}$ | 54c |
| $\frac{1}{2}$ | 33c | 1 | 56c |
| $\frac{3}{4}$ | 33c | 1 $\frac{1}{2}$ | 58c |
| 1 | 33c | 2 | 60c |
| 1 $\frac{1}{2}$ | 33c | 2 $\frac{1}{2}$ | 62c |
| 2 | 33c | 3 | 64c |
| 2 $\frac{1}{2}$ | 33c | 3 $\frac{1}{2}$ | 66c |
| 3 | 33c | 4 | 68c |
| 3 $\frac{1}{2}$ | 33c | 4 $\frac{1}{2}$ | 70c |
| 4 | 33c | 5 | 72c |
| 4 $\frac{1}{2}$ | 33c | 5 $\frac{1}{2}$ | 74c |
| 5 | 33c | 6 | 76c |
| 5 $\frac{1}{2}$ | 33c | 6 $\frac{1}{2}$ | 78c |
| 6 | 33c | 7 | 80c |
| 6 $\frac{1}{2}$ | 33c | 7 $\frac{1}{2}$ | 82c |
| 7 | 33c | 8 | 84c |
| 7 $\frac{1}{2}$ | 33c | 8 $\frac{1}{2}$ | 86c |
| 8 | 33c | 9 | 88c |
| 8 $\frac{1}{2}$ | 33c | 9 $\frac{1}{2}$ | 90c |
| 9 | 33c | 10 | 92c |
| 9 $\frac{1}{2}$ | 33c | 10 $\frac{1}{2}$ | 94c |
| 10 | 33c | 11 | 96c |
| 10 $\frac{1}{2}$ | 33c | 11 $\frac{1}{2}$ | 98c |
| 11 | 33c | 12 | 100c |
| 11 $\frac{1}{2}$ | 33c | 12 $\frac{1}{2}$ | 102c |
| 12 | 33c | 13 | 104c |
| 12 $\frac{1}{2}$ | 33c | 13 $\frac{1}{2}$ | 106c |
| 13 | 33c | 14 | 108c |
| 13 $\frac{1}{2}$ | 33c | 14 $\frac{1}{2}$ | 110c |
| 14 | 33c | 15 | 112c |
| 14 $\frac{1}{2}$ | 33c | 15 $\frac{1}{2}$ | 114c |
| 15 | 33c | 16 | 116c |
| 15 $\frac{1}{2}$ | 33c | 16 $\frac{1}{2}$ | 118c |
| 16 | 33c | 17 | 120c |
| 16 $\frac{1}{2}$ | 33c | 17 $\frac{1}{2}$ | 122c |
| 17 | 33c | 18 | 124c |
| 17 $\frac{1}{2}$ | 33c | 18 $\frac{1}{2}$ | 126c |
| 18 | 33c | 19 | 128c |
| 18 $\frac{1}{2}$ | 33c | 19 $\frac{1}{2}$ | 130c |
| 19 | 33c | 20 | 132c |
| 19 $\frac{1}{2}$ | 33c | 20 $\frac{1}{2}$ | 134c |
| 20 | 33c | 21 | 136c |
| 20 $\frac{1}{2}$ | 33c | 21 $\frac{1}{2}$ | 138c |
| 21 | 33c | 22 | 140c |
| 21 $\frac{1}{2}$ | 33c | 22 $\frac{1}{2}$ | 142c |
| 22 | 33c | 23 | 144c |
| 22 $\frac{1}{2}$ | 33c | 23 $\frac{1}{2}$ | 146c |
| 23 | 33c | 24 | 148c |
| 23 $\frac{1}{2}$ | 33c | 24 $\frac{1}{2}$ | 150c |
| 24 | 33c | 25 | 152c |
| 24 $\frac{1}{2}$ | 33c | 25 $\frac{1}{2}$ | 154c |
| 25 | 33c | 26 | 156c |
| 25 $\frac{1}{2}$ | 33c | 26 $\frac{1}{2}$ | 158c |
| 26 | 33c | 27 | 160c |
| 26 $\frac{1}{2}$ | 33c | 27 $\frac{1}{2}$ | 162c |
| 27 | 33c | 28 | 164c |
| 27 $\frac{1}{2}$ | 33c | 28 $\frac{1}{2}$ | 166c |
| 28 | 33c | 29 | 168c |
| 28 $\frac{1}{2}$ | 33c | 29 $\frac{1}{2}$ | 170c |
| 29 | 33c | 30 | 172c |
| 29 $\frac{1}{2}$ | 33c | 30 $\frac{1}{2}$ | 174c |
| 30 | 33c | 31 | 176c |
| 30 $\frac{1}{2}$ | 33c | 31 $\frac{1}{2}$ | 178c |
| 31 | 33c | 32 | 180c |
| 31 $\frac{1}{2}$ | 33c | 32 $\frac{1}{2}$ | 182c |
| 32 | 33c | 33 | 184c |
| 32 $\frac{1}{2}$ | 33c | 33 $\frac{1}{2}$ | 186c |
| 33 | 33c | 34 | 188c |
| 33 $\frac{1}{2}$ | 33c | 34 $\frac{1}{2}$ | 190c |
| 34 | 33c | 35 | 192c |
| 34 $\frac{1}{2}$ | 33c | 35 $\frac{1}{2}$ | 194c |
| 35 | 33c | 36 | 196c |
| 35 $\frac{1}{2}$ | 33c | 36 $\frac{1}{2}$ | 198c |
| 36 | 33c | 37 | 200c |
| 36 $\frac{1}{2}$ | 33c | 37 $\frac{1}{2}$ | 202c |
| 37 | 33c | 38 | 204c |
| 37 $\frac{1}{2}$ | 33c | 38 $\frac{1}{2}$ | 206c |
| 38 | 33c | 39 | 208c |
| 38 $\frac{1}{2}$ | 33c | 39 $\frac{1}{2}$ | 210c |
| 39 | 33c | 40 | 212c |
| 39 $\frac{1}{2}$ | 33c | 40 $\frac{1}{2}$ | 214c |
| 40 | 33c | 41 | 216c |
| 40 $\frac{1}{2}$ | 33c | 41 $\frac{1}{2}$ | 218c |
| 41 | 33c | 42 | 220c |
| 41 $\frac{1}{2}$ | 33c | 42 $\frac{1}{2}$ | 222c |
| 42 | 33c | 43 | 224c |
| 42 $\frac{1}{2}$ | 33c | 43 $\frac{1}{2}$ | 226c |
| 43 | 33c | 44 | 228c |
| 43 $\frac{1}{2}$ | 33c | 44 $\frac{1}{2}$ | 230c |
| 44 | 33c | 45 | 232c |
| 44 $\frac{1}{2}$ | 33c | 45 $\frac{1}{2}$ | 234c |
| 45 | 33c | 46 | 236c |
| 45 $\frac{1}{2}$ | 33c | 46 $\frac{1}{2}$ | 238c |
| 46 | 33c | 47 | 240c |
| 46 $\frac{1}{2}$ | 33c | 47 $\frac{1}{2}$ | 242c |
| 47 | 33c | 48 | 244c |
| 47 $\frac{1}{2}$ | 33c | 48 $\frac{1}{2}$ | 246c |
| 48 | 33c | 49 | 248c |
| 48 $\frac{1}{2}$ | 33c | 49 $\frac{1}{2}$ | 250c |
| 49 | 33c | 50 | 252c |
| 49 $\frac{1}{2}$ | 33c | 50 $\frac{1}{2}$ | 254c |
| 50 | 33c | 51 | 256c |
| 50 $\frac{1}{2}$ | 33c | 51 $\frac{1}{2}$ | 258c |
| 51 | 33c | 52 | 260c |
| 51 $\frac{1}{2}$ | 33c | 52 $\frac{1}{2}$ | 262c |
| 52 | 33c | 53 | 264c |
| 52 $\frac{1}{2}$ | 33c | 53 $\frac{1}{2}$ | 266c |
| 53 | 33c | 54 | 268c |
| 53 $\frac{1}{2}$ | 33c | 54 $\frac{1}{2}$ | 270c |
| 54 | 33c | 55 | 272c |
| 54 $\frac{1}{2}$ | 33c | 55 $\frac{1}{2}$ | 274c |
| 55 | 33c | 56 | 276c |
| 55 $\frac{1}{2}$ | 33c | 56 $\frac{1}{2}$ | 278c |
| 56 | 33c | 57 | 280c |
| 56 $\frac{1}{2}$ | 33c | 57 $\frac{1}{2}$ | 282c |
| 57 | 33c | 58 | 284c |
| 57 $\frac{1}{2}$ | 33c | 58 $\frac{1}{2}$ | 286c |
| 58 | 33c | 59 | 288c |
| 58 $\frac{1}{2}$ | 33c | 59 $\frac{1}{2}$ | 290c |
| 59 | 33c | 60 | 292c |
| 59 $\frac{1}{2}$ | 33c | 60 $\frac{1}{2}$ | 294c |
| 60 | 33c | 61 | 296c |
| 60 $\frac{1}{2}$ | 33c | 61 $\frac{1}{2}$ | 298c |
| 61 | 33c | 62 | 300c |
| 61 $\frac{1}{2}$ | 33c | 62 $\frac{1}{2}$ | 302c |
| 62 | 33c | 63 | 304c |
| 62 $\frac{1}{2}$ | 33c | 63 $\frac{1}{2}$ | 306c |
| 63 | 33c | 64 | 308c |
| 63 $\frac{1}{2}$ | 33c | 64 $\frac{1}{2}$ | 310c |
| 64 | 33c | 65 | 312c |
| 64 $\frac{1}{2}$ | 33c | 65 $\frac{1}{2}$ | 314c |
| 65 | 33c | 66 | 316c |
| 65 $\frac{1}{2}$ | 33c | 66 $\frac{1}{2}$ | 318c |
| 66 | 33c | 67 | 320c |
| 66 $\frac{1}{2}$ | 33c | 67 $\frac{1}{2}$ | 322c |
| 67 | 33c | 68 | 324c |
| 67 $\frac{1}{2}$ | 33c | 68 $\frac{1}{2}$ | 326c |
| 68 | 33c | 69 | 328c |
| 68 $\frac{1}{2}$ | 33c | 69 $\frac{1}{2}$ | 330c |
| 69 | 33c | 70 | 332c |
| 69 $\frac{1}{2}$ | 33c | 70 $\frac{1}{2}$ | 334c |
| 70 | 33c | 71 | 336c |
| 70 $\frac{1}{2}$ | 33c | 71 $\frac{1}{2}$ | 338c |
| 71 | 33c | 72 | 340c |
| 71 $\frac{1}{2}$ | 33c | 72 $\frac{1}{2}$ | 342c |
| 72 | 33c | 73 | 344c |
| 72 $\frac{1}{2}$ | 33c | 73 $\frac{1}{2}$ | 346c |
| 73 | 33c | 74 | 348c |
| 73 $\frac{1}{2}$ | 33c | 74 $\frac{1}{2}$ | 350c |
| 74 | 33c | 75 | 352c |
| 74 $\frac{1}{2}$ | 33c | 75 $\frac{1}{2}$ | 354c |
| 75 | 33c | 76 | 356c |
| 75 $\frac{1}{2}$ | 33c | 76 $\frac{1}{2}$ | 358c |
| 76 | 33c | 77 | 360c |
| 76 $\frac{1}{2}$ | 33c | 77 $\frac{1}{2}$ | 362c |
| 77 | 33c | 78 | 364c |
| 77 $\frac{1}{2}$ | 33c | 78 $\frac{1}{2}$ | 366c |
| 78 | 33c | 79 | 368c |
| 78 $\frac{1}{2}$ | 33c | 79 $\frac{1}{2}$ | 370c |
| 79 | 33c | 80 | 372c |
| 79 $\frac{1}{2}$ | 33c | 80 $\frac{1}{2}$ | 374c |
| 80 | 33c | 81 | 376c |
| 80 $\frac{1}{2}$ | 33c | 81 $\frac{1}{2}$ | 378c |
| 81 | 33c | 82 | 380c |
| 81 $\frac{1}{2}$ | 33c | 82 $\frac{1}{2}$ | 382c |
| 82 | 33c | 83 | 384c |
| 82 $\frac{1}{2}$ | 33c | 83 $\frac{1}{2}$ | 386c |
| 83 | 33c | 84 | 388c |
| 83 $\frac{1}{2}$ | 33c | 84 $\frac{1}{2}$ | 390c |
| 84 | 33c | 85 | 392c |
| 84 $\frac{1}{2}$ | 33c | 85 $\frac{1}{2}$ | 394c |
| 85 | 33c | 86 | 396c |
| 85 $\frac{1}{2}$ | 33c | 86 $\frac{1}{2}$ | 398c |
| 86 | 33c | 87 | 400c |
| 86 $\frac{1}{2}$ | 33c | 87 $\frac{1}{2}$ | 402c |
| 87 | 33c | 88 | 404c |
| 87 $\frac{1}{2}$ | 33c | 88 $\frac{1}{2}$ | 406c |
| 88 | 33c | 89 | 408c |
| 88 $\frac{1}{2}$ | 33c | 89 $\frac{1}{2}$ | 410c |
| 89 | 33c | 90 | 412c |
| 89 $\frac{1}{2}$ | 33c | 90 $\frac{1}{2}$ | 414c |
| 90 | 33c | 91 | 416c |
| 90 $\frac{1}{2}$ | 33c | 91 $\frac{1}{2}$ | 418c |
| 91 | 33c | 92 | 420c |
| 91 $\frac{1}{2}$ | 33c | 92 $\frac{1}{2}$ | 422c |
| 92 | 33c | 93 | 424c |
| 92 $\frac{1}{2}$ | 33c | 93 $\frac{1}{2}$ | 426c |
| 93 | 33c | 94 | 428c |
| 93 $\frac{1}{2}$ | 33c | 94 $\frac{1}{2}$ | 430c |
| 94 | 33c | 95 | 432c |
| 94 $\frac{1}{2}$ | 33c | 95 $\frac{1}{2}$ | 434c |
| 95 | 33c | 96 | 436c |
| 95 $\frac{1}{2}$ | 33c | 96 $\frac{1}{2}$ | 438c |
| 96 | 33c | 97 | 440c |
| 96 $\frac{1}{2}$ | 33c | 97 $\frac{1}{2}$ | 442c |
| 97 | 33c | 98 | 444c |
| 97 $\frac{1}{2}$ | 33c | 98 $\frac{1}{2}$ | 446c |
| 98 | 33c | 99 | 448c |
| 98 $\frac{1}{2}$ | 33c | 99 $\frac{1}{2}$ | 450c |
| 99 | 33c | 100 | 452c |
| 99 $\frac{1}{2}$ | 33c | 100 $\frac{1}{2}$ | 454c |
| 100 | 33c | 101 | 456c |
| 100 $\frac{1}{2}$ | 33c | 101 $\frac{1}{2}$ | 458c |
| 101 | 33c | 102 | 460c |
| 101 $\frac{1}{2}$ | 33c | 102 $\frac{1}{2}$ | 462c |
| 102 | 33c | 103 | 464c |
| 102 $\frac{1}{2}$ | 33c | 103 $\frac{1}{2}$ | 466c |
| 103 | 33c | 104 | 468c |
| 103 $\frac{1}{2}$ | 33c | 104 $\frac{1}{2}$ | 470c |
| 104 | 33c | 105 | 472c |
| 104 $\frac{1}{2}$ | 33c | 105 $\frac{1}{2}$ | 474c |
| 105 | 33c | 106 | 476c |
| 105 $\frac{1}{2}$ | 33c | 106 $\frac{1}{2}$ | 478c |
| 106 | 33c | 107 | 480c |
| 106 $\frac{1}{2}$ | 33c | 107 $\frac{1}{2}$ | 482c |
| 107 | 33c | 108 | 484c |
| 107 $\frac{1}{2}$ | 33c | 108 $\frac{1}{2}$ | 486c |
| 108 | 33c | 109 | 488c |
| 108 $\frac{1}{2}$ | 33c | 109 $\frac{1}{2}$ | 490c |
| 109 | 33c | 110 | 492c |
| 109 $\frac{1}{2}$ | 33c | 110 $\frac{1}{2}$ | 494c |
| 110 | 33c | 111 | 496c |
| 110 $\frac{1}{2}$ | 33c | 111 $\frac{1}{2}$ | 498c |
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| 112 | 33c | 113 | 504c |
| 112 $\frac{1}{2}$ | 33c | 113 $\frac{1}{2}$ | 506c |
| 113 | 33c | 114 | 508c |
| 113 $\frac{1}{2}$ | 33c | 114 $\frac{1}{2}$ | 510c |
| 114 | 33c | 115 | 512c |
| 114 $\frac{1}{2}$ | 33c | 115 $\frac{1}{2}$ | 514c |
| 115 | 33c | 116 | 516c |
| 115 $\frac{1}{2}$ | 33c | 116 $\frac{1}{2}$ | 518c |
| 116 | 33c | 117 | 520c |
| 116 $\frac{1}{2}$ | 33c | 117 $\frac{1}{2}$ | 522c |
| 117 | 33c | 118 | 524c |
| 117 $\frac{1}{2}$ | 33c | 118 $\frac{1}{2}$ | 526c |
| 118 | 33c | 119 | 528c |

Drills that Make Hard Work Easy

Goodell-Pratt Automatic Screw Driver



Screw Driver Drill Attachment

84 E 1412—Drill Chuck and 8 fluted drill points. To fit No. 84E1400. Drill. Ship. wt., 6 oz. **96c**

84 E 1400—Goodell-Pratt, Style 111. For right or left-hand work automatically or as a ratchet or a solid screwdriver. Length, extended, with bit in place, 18 inches. Length, closed, with bit removed, 10 inches. Complete with three polished steel screwdriver bits. A handsome, well finished fast working tool. Shipping weight, 1 1/4 pounds. **\$2.45**

(For Drill Attachment See No. 84E1412.)

Goodell-Pratt Breast Drill

Ball Bearing, Two Speeds

84 E 1265—Style 6A. A fine high-grade breast drill. Double geared. With two speeds, readily changed from fast to slow. The spindle runs in a hardened steel cone bearing. Breast plate is adjustable. Improved three-jawed chuck; capacity, 0 to 1/2 inch. Will hold round shank drills accurately and true. Nickel-plated and enamel finish. Length, 16 inches. Shipping weight, 6 pounds. **\$4.75**

Double Geared 2 Speeds Adjustable Breast Plate 3-Jawed Chuck

High Speed Breast Drill

84 E 1279—Goodell-Pratt Style 179. Steel frame, crank and chuck. Aluminum covered gear case. Ball thrust bearing. Leather breast strap. Two speeds 7 to 1 and 2 to 1. Holds drills 1/2 to 3/4 inch. Nickel-plated. Length 20 in. Ship. wt., 8 lbs. **\$9.97**

Large Breast Drill

84 E 1278—Goodell-Pratt Style 20. Japanned malleable frame. Ball bearings. Cut gears. Two speeds. Breast plate has leather top. D pattern side handle. Three-jawed chuck nickel-plated, holding up to 1/2-inch round shank drills. Hardwood handles. Lgh., 18 in. Ship. wt., 8 lbs. **\$5.98**



84 E 1298—Goodell-Pratt Hand Drill. Size 5 1/2. One of the finest produced. Double gears, two speeds and a three-jawed chuck. Capacity, 0 to 3/4 inches. Polished wood handles. No drills included. Shipping weight, 3 pounds. **\$4.25**



84 E 1305—Goodell-Pratt Drill Style 329. All steel frame crank and three-jawed chuck. Nickel-plated. Machine cut gears. Hardwood handles. Length, 11 1/2 inches. Holds drills 1/2 to 3/4 inches. Drills not included. Shipping weight, 3 pounds. **\$2.85**



84 E 1334—7 1/2-inch rosewood finish handle, with strong screw chuck and 10 tools. One each, gimlet, saw, gouge, chisel, file, wide and narrow, screwdriver, bit, leather punch, bradawl and wood reamer. Average length of tools, 4 in. Ship. wt., 22 oz. **\$1.87**

Automatic Spiral Screw Driver



84 E 1402—Millers Falls Style 41. Spiral grooves are one deeper than the other to prevent wear. Adjustable right, left or stationary. Length, extended, 20 in. Three bits, 3 in. long, two double end, giving five points in all. Steel, with hardwood handle. Ship. wt., 27 oz. **\$2.99**

Automatic Screw Driver



84 E 1408—Goodell-Pratt Style 40. Can be used as an automatic, or locked as a solid screw driver. Length, extended, 14 in. Three bits. Ship. wt., 16 to 24 ounces. **\$1.42**

Ratchet Screw Drivers



84 E 1448—Goodell-Pratt Style 66. Ratchet action is changed from right to left or to rigid by turning knurled ferrule. Tempered steel blades, polished hardwood handle. Ship. wt., 8 to 16 ounces.

| | | | | | |
|-----------------|-------|-------|-------|-------|--------|
| Blade, in..... | 2 | 4 | 6 | 8 | 10 |
| Total lgh., in. | 4 1/2 | 5 1/2 | 8 1/2 | 9 1/2 | 12 1/2 |
| | 82c | 87c | 94c | 98c | \$1.09 |
| | | | | | \$1.24 |



84 E 1430—Hardwood Handle, steel ferrule. Forged steel blades. Shipping weight, 6 to 12 ounces.

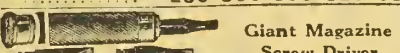
| | | | |
|-----------------|-----|-----|-----|
| Blade, in..... | 4 | 6 | 8 |
| Length, in..... | 15c | 20c | 25c |

Genuine Champion Screw Drivers

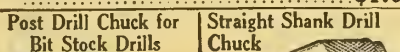


84 E 1422—One of the finest made. The blade is forged from the toughest steel, fastened securely into a fluted hardwood handle. Every blade is tested to split a screw head. Ship. wt., 10 to 18 oz.

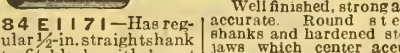
| | | | | | |
|-----------------|-----|-------|--------|--------|-----|
| Blade, in..... | 3 | 4 | 6 | 8 | 10 |
| Length, in..... | 7 | 8 1/2 | 11 1/2 | 14 1/2 | 17 |
| | 25c | 30c | 39c | 52c | 65c |



84 E 1439—For machinists, tool makers, garage men and motorists. Handy screw driver made of highest tool steel. Will not break or bend. When used with wrench it is an ideal screw driver. Large blades snapped in and out. Has square shanks which allows use of wrench for extra leverage. Nickel plated and hand polished. Length, 6 inches. Shipping weight, 1 pound. **\$1.65**



84 E 1171—Has regular 1/2-in. straight shank to fit blacksmiths' post drills. Square milled socket takes regular bit-shank twist-drills, which are kept from falling out by a friction spring. Ship. wt., 1 lb. **\$1.10**



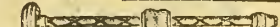
Well finished, strong and accurate. Round steel shanks and hardened steel jaws which center accurately.

84 E 1165—Holds from 0 to 1/4. Has shank 1/2 x 2 1/2 in. Ship. wt., 14 ounces. **\$1.65**

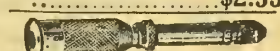
84 E 1166—Holds from 0 to 3/4. Has shank 2 1/2 x 3 1/2 in. Ship. wt., 20 oz. **\$1.98**

The Genuine Punch Drill bears this Trade Mark and costs no more but assures you of the best

Goodell-Pratt Reciprocating Drill



84 E 1328—For boring iron, brass, wood, etc. Polished hardwood head, hall bearing. Three-jawed chuck. Capacity up to 1/2-inch. Drill bits not included. (See 84E1060 for drills.) A fine drill for rapid work. Shipping weight, 2 pounds. **\$2.33**



84 E 1325—Nickel-plated Magazine handle contains 8 drills, 1/2 to 3/4 inches, and a screw driver bit. May be compressed to fit the pocket. Length, open, 7 1/4 inches; closed, 5 inches. Handy, serviceable and well made. Shipping weight, 1 pound. **\$2.85**

Drive Pin Punch Set

84 E 1134—Set of 5 Steel Punches. Knurled body. Diameter, 3/8 inch. Length, 4 inches. Size of points 3/32, 1/16, 1/8, 3/16, 1/4. Shipping weight, 10 ounces. **82c**

84 E 1133—Four punches. Length, 6 inches. Diameter, of points, 3/32, 1/16, 1/8, 3/16. Steel tempered. (Without box) Shipping weight, 1 pound. Per set **\$4.8c**

Nail Sets

84 E 1120—Four steel nail sets, assorted sizes. Put up in a neat pocket case with cover. Length, 4 inches. Shipping weight, 10 ounces. **72c**

84 E 1112—Individual Set. **12c**

Tool Set

84 E 1330—Polished hardwood handle. Contains 10 tools as illustrated. Length of handle, 5 1/2 inches. Shipping weight, 9 ounces. **\$1.23**

Famous Mr. Punch Drill

84 E 1311—Goodell-Pratt Automatic Hand Drill Number 185. One or two quick punches drills a hole. Pushing handle down rapidly revolves the drill, and a spring automatically pushes the handle back. Case made of brass, nickel plated. Length, 10 inches. Complete with eight drill points, assorted from 1/16 to 1/4 in. numbered magazine handle. Easy to find the size drill you want. Shipping weight, 1 pound. **\$1.98**

84 E 1313—Extra drill bits. Set of 8 in wooden box. Shipping weight, 4 ounces. **75c**

Goodell-Pratt Automatic Drill



84 E 1322—Pushing down on the handle rapidly revolves the point. For all kinds of wood boring. Has hardwood handle. Metal parts finished in dull nickel. Length, 9 3/4 inches. With 8 drill points, 1/16 to 1/4 inch. Shipping weight, 14 ounces. **\$1.24**

84 E 1323—Extra drill bits. Shipping weight, each, 1 ounce. **6c**

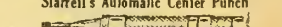
Center Punch

84 E 1126—Solid steel. Diameter, 3/8 inches. Length, 4 inches. Shipping weight, 4 ounces. **10c**

Countersinks

84 E 1093—Rose head. For wood or soft metal. Tool Steel. Countersinks holes up to 3/4-inch. Length, about 3 1/2 inches. Shipping weight, 3 ounces. **16c**

Starrett's Automatic Center Punch



84 E 1130—No hammer needed. Polished and tempered steel. Length, 5 inches. Diameter, 1/2 inch. Shipping weight, 5 ounces. **\$2.28**

Fluted Taper Reamers

84 E 1076—For reaming holes in metal. Milled tool steel. Taper from 1/4 to 1/2-inch. Length, about 5 inches. Shipping weight, 4 ounces. **67c**

84 E 1077—Milled tool steel. Tapers 1/4 to 1/2-inch. Length, about 5 inches. Shipping weight, 8 ounces. **\$1.29**

Screw Driver Bits

84 E 1108—Extra quality steel. Length, 4 1/4 inches. Shipping weight, 6 ounces. **35c**

84 E 1109—Standard grade steel. Length, 4 1/4 inches. Shipping weight, 4 ounces. **10c**

Genuine Cleveland Twist Drill Company's High Grade Metal Drills

Straight Shank Twist Drills For Metal Boring

84 E 1060—High grade drills, carefully ground and tempered. Shanks are the same diameter as the drill. (See our complete sets with stand shown below.) Ship. wt., 1 to 5 oz.

| | | | | | | |
|-----------------|-------|-------|-------|-----|-------|-------|
| Diam. in..... | 3/16 | 3/32 | 3/64 | 1/8 | 5/64 | 3/32 |
| Length, in..... | 2 1/2 | 2 1/2 | 2 1/2 | 3 | 3 1/2 | 3 1/2 |
| | 7c | 8c | 9c | 10c | 11c | 11c |

| | | | | | | |
|-----------------|-------|-------|-------|-----|-------|-------|
| Diam. in..... | 3/16 | 3/32 | 3/64 | 1/8 | 5/64 | 3/32 |
| Length, in..... | 3 1/2 | 3 1/2 | 3 1/2 | 4 | 4 1/2 | 4 1/2 |
| | 12c | 14c | 15c | 16c | 17c | 19c |

| | | | | | | |
|-----------------|-------|-------|-------|-----|-------|-------|
| Diam. in..... | 3/16 | 3/32 | 3/64 | 1/8 | 5/64 | 3/32 |
| Length, in..... | 4 1/2 | 4 1/2 | 4 1/2 | 5 | 5 1/2 | 5 1/2 |
| | 22c | 23c | 25c | 27c | 29c | 32c |

| | | | | | | |
|-----------------|-------|-------|-------|-----|-------|-------|
| Diam. in..... | 3/16 | 3/32 | 3/64 | 1/8 | 5/64 | 3/32 |
| Length, in..... | 5 1/2 | 5 1/2 | 5 1/2 | 6 | 6 1/2 | 6 1/2 |
| | 37c | 40c | 45c | 49c | 54c | 63c |

Machinists' Drill Sets

Set 1-16 to 1-2 inches

84 E 1062—Set of 29 Drills with finely finished Metal Stand with holes numbered corresponding to drills. Sizes of drills from 1/16-in. to 1 1/2-in. inclusive, by 64ths. Length, 2 1/2 to 6 1/4 in. Ship. wt., 4 1/2 lbs. **\$9.95**

Set No. 1 to No. 60 (Wire Gauge).

84 E 1064—Set of 60 drills with numbered metal stand. Sizes from No. 1 to 60 wire gauge sizes. Ship. wt., 4 lbs. **\$8.90**

Round Shank Metal Drills

Best quality twist drills for blacksmith and power machines. Accurately ground to exact size, fast cutting, tough and durable. Carefully inspected. Drills up to 1/4 in. are 3 1/4 in. long, and drills larger than 1/4 are 6 in. long. Ship. wt., 2 to 15 oz. Made with either 1/2 or 3/4 in. round shank.

84 E 1055—With 1/2-in. shank.

| | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| Size in..... | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 |
| | 30c | 32c | 35c | 38c | 42c | 44c | 48c |
| Size in..... | 1/2 | 5/8 | 3/4 | 7/8 | 1 | 1 1/8 | 1 1/4 |
| | 55c | 59c | 62c | 65c | 69c | 72c | 76c |
| Size in..... | 1 1/8 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 |
| | 99c | 1.03 | 1.10 | 1.16 | 1.24 | 1.31 | 1.37 |
| Size in..... | 2 1/4 | 2 1/2 | 2 3/4 | 3 | 3 1/4 | 3 1/2 | 3 3/4 |
| | 1.44 | 1.50 | 1.58 | 1.65 | 1.69 | | |

Ezy-Out Screw Extractors

84 E 1067—When a set or cap screw, stud or stray bolt breaks in your work drill a hole in broken screw. Insert screw extractor slip on a tap wrench and twist—and out comes the broken section without injury to the threads of the original hole. Set of three steel extractors for garage and general use. 1 each, diameter at point, 3/16, 1/4, 3/8 inches. Length, about 3 1/4 inches. Shipping weight, 12 ounces. **\$1.83**

Bit Shank Drills

84 E 1050—With square taper shank and will fit any ordinary bit brace. Each drill is carefully tempered, tested and finished. Strictly high quality. None better made. For boring either metal or wood. Length, 3 1/2 to 7 1/4 in. Shipping weight, each, 1 to 9 ounces.

| | | | | | | | |
|--------------|-------|-------|-------|-------|--------|-------|-------|
| Size in..... | 1/16 | 3/32 | 1/8 | 5/32 | 3/16 | 7/32 | 1/4 |
| | 12c | 13c | 16c | 18c | 20c | 23c | 26c |
| Size in..... | 5/16 | 1/2 | 5/8 | 3/4 | 7/8 | 1 | 1 1/8 |
| | 32c | 36c | 43c | 45c | 50c | 54c | 60c |
| Size in..... | 1 1/8 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 |
| | 68c | 70c | 80c | 90c | \$1.08 | 1.25 | |

Steel Twist Drill Set

84 E 1052—Set of nine strictly first quality steel twist drills for metal or wood with square shank for bit brace. One each, 1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/8, 3/4. Complete in round screw covered wood box. Lengths, 3 1/2 to 6 1/4 in. Ship. wt., 1 1/4 lbs. **\$2.39**

Pliers and Machinists Tools-For Every Purpose

Side Cutting Slip Joint Pliers



64c

84 E 2202 — High grade drop forged finely nickel-plated steel side cutting pliers. Will take pipe 1/4 to 3/4 inches. Two tools in one. Six inches long. Shipping weight, 10 ounces.

64c

Combination Side Cutting Pliers



70c

Forged steel, tempered and tested. Flat nose grooved for pipe. Three wire cutters—one on side. Polished jaws. 84 E 2203 — Length, 6 inches. Shipping weight, 12 ounces.

70c

84 E 2204 — Length, 7 inches. Shipping weight, 16 ounces.

85c

Diagonal Cutting Pliers



\$1.30

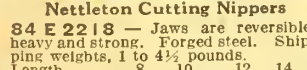
84 E 2186 — Finest forged tool steel. Well finished. Jaws are hand honed. Well adapted for jewelers, electricians, motorists, and opticians. Shipping weight, about 6 ounces.

5

6

\$1.30

\$1.54



Netleton Cutting Nippers

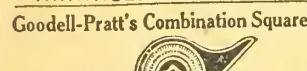
84 E 2218 — Jaws are reversible, heavy and strong. Forged steel. Shipping weights, 1 to 4 1/2 pounds. Length, 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

\$1.10

\$1.30

\$1.55

\$1.95



Combination Caliper

84 E 2549 — Inside and outside caliper and depth gauge. Spring nickel silver. Guaranteed not to rust. Scale graduated for 16ths on one side and 32nds on the other. Jaws one inch deep. 4 inch 5 inch 6 inch 8 inch 10 inch 12 inch 14 inch 16 inch 18 inch 20 inch 22 inch 24 inch 26 inch 28 inch 30 inch 32 inch 34 inch 36 inch 38 inch 40 inch 42 inch 44 inch 46 inch 48 inch 50 inch 52 inch 54 inch 56 inch 58 inch 60 inch 62 inch 64 inch 66 inch 68 inch 70 inch 72 inch 74 inch 76 inch 78 inch 80 inch 82 inch 84 inch 86 inch 88 inch 90 inch 92 inch 94 inch 96 inch 98 inch 100 inch

\$2.20

\$2.40

\$2.60

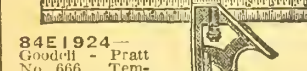


Goodell-Pratt's Combination Squares

84 E 2528 — A combination of machinists' adjustable try square level and mitre rule, marking gauge, scriber, depth gauge, height gauge and center gauge. Tempered blade. Graduated 8th, 16th, 32nd and 64th inches. Interchangeable iron heads. Protractor graduated 0 to 90 both ways; with level. Ship. wt. about 2 1/2 lbs. Blade, inches, 12 18

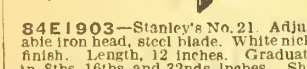
\$8.25

\$9.05



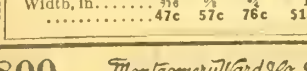
Starrett Combination Squares

84 E 2522 — A combination of a whole set of try squares, depth gauge, mortise gauge, miter centering gauge, and rule. Graduated, 8th, 16th, 32nd, 64th in. Accurate, interchangeable iron centering head and square head with level and scriber. Ship. wt., 1 to 2 lbs. With tempered blade. Blade, 6 in. 9 in. 12 in. Set, \$2.28 \$2.85 \$3.42



Goodell-Pratt Combination Square

84 E 1924 — Pratt No. 666. Tempered blade, graduated 8th, 12th, 32nd, 48th in. Ship. wt. 1 1/2 lbs. Blade, 12 in. Set, \$2.90



Stanley Try and Mitre Square

84 E 1903 — Stanley's No. 21. Adjustable iron head, steel blade. White nickel finish. Length, 12 inches. Graduated in 8ths, 16ths and 32nds inches. Ship. wt., 1 1/4 lbs. \$1.15

Klein's Pattern Linemen's Pliers

84 E 2180 — Klein's pattern. Lap joint beveled head. Drop forged steel, finished and tempered. Large opening for cutting insulated wire. Shipping weight, 16 to 20 ounces. Length, 6 inches.

\$1.48

Length, 8 inches.

1.98



Cutting Pliers

84 E 2210 — Bernard's parallel jaw, full nickel-plated, crucible steel. Flat nose with high tempered wire cutter. Shipping weight, 8 to 18 oz. Size, in. 5 6 7

\$1.53

1.90

2.25

40c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48

40c

55c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48

40c

55c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48

40c

55c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48

40c

55c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48

40c

55c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48

40c

55c

84 E 2185 — Stamped steel, nickel-plated, with wire cutter. Shipping weight, 8 ounces. Size, in. 5 6 7

\$1.10

\$1.48

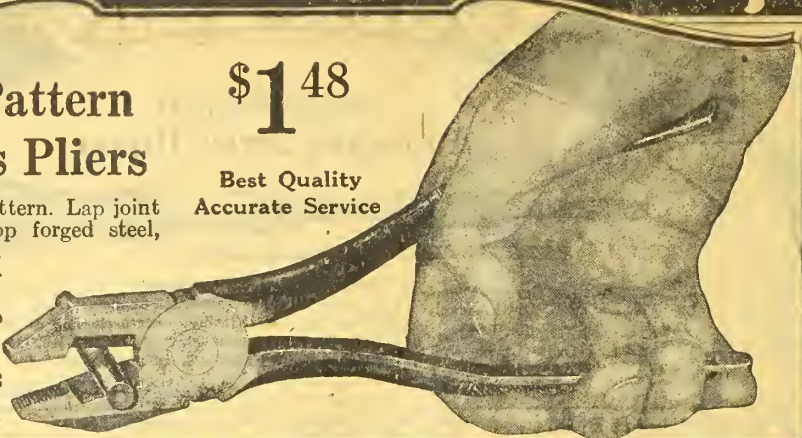
40c

55c

84 E 2188 — Forged steel, tempered jaws. Give size. Ship. wt., 10 to 20 oz. Size, in. 6 7

\$1.10

\$1.48
Best Quality
Accurate Service



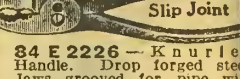
Offset Combination Pliers



84 E 2211 — High grade forged steel—finest nickel-plated offset plier, with sl joint adjustable for pipe 1/4 to 3/4 inches thick. Six inches long. Handy tool for difficult places. Shipping weight, 11 ounces.

55

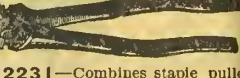
Combination Gas Pliers



84 E 2226 — Knurled Handle. Drop forged steel. Jaws grooved for pipe with Wire Cutter. A high-grade tool that will stand up under the most severe usage. Length, 10 inches. Shipping weight, 1 pound.

90

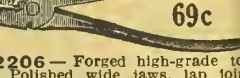
Lakeside Forged Fence Plier



84 E 2231 — Combines staple puller, double wire cutter, double hammer, splicer, pliers and wrench. Forged steel, well finished. Length, 10 inches. Shipping weight, 2 1/2 pounds.

\$1.2

Heavy Combination Pliers



84 E 2206 — Forged high-grade tool steel. Polished wide jaws. Lap joint. An extra heavy strong pattern, with wire cutter.

Size

8 in.

16 oz.

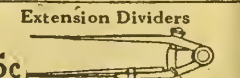
69c

10 in.

1 1/2 lbs.

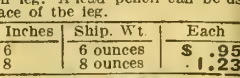
83c

Six-Tube Spring Punch



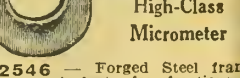
\$1.1

Extension Dividers



95c

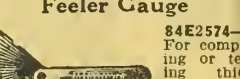
High-Class Micrometer



84 E 2546 — Forged steel frame. Decimal equivalents for fractions of inches. Highly polished. Graduated 0 read 0 to 1 in by 100ths. Length closed, 4 in. Ship. wt., 8 oz.

\$4.9

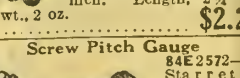
Feeler Gauge



84 E 2574 — For comparing or testing thicknesses. Various combinations can be made. Each leaf marked by thousands. Twenty four leaves, .002 to .020 inch. Length, 2 1/2 in.

\$2.2

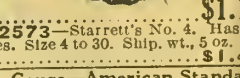
Screw Pitch Gauge



84 E 2572 — Starrett's No. 4. Has 22 pitches. Sizes, 9 to 40. Ship. wt., 3 oz.

\$1.1

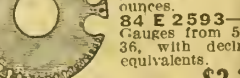
Wire Gauge—American Standard



84 E 2573 — Starrett's No. 4. Has 22 pitches. Size 4 to 30. Ship. wt., 5 oz.

\$1.4

Starrett's Speed Indicator

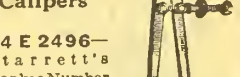


84 E 1858 — With iron handle. \$98

84 E 1859 — With rosewood handle. \$1.4

Starrett's Calipers and Dividers

Inside Calipers



84 E 2496 — Starrett's Yankee Number 73. Solid nut.

Size

4 in.

5 in.

6 in.

7 in.

8 in.

9 in.

10 in.

11 in.

12 in.

13 in.

14 in.

15 in.

16 in.

17 in.

18 in.

19 in.

20 in.

21 in.

22 in.

23 in.

24 in.

25 in.

26 in.

27 in.

28 in.

29 in.

30 in.

31 in.

32 in.

33 in.

34 in.

35 in.

36 in.

37 in.

38 in.

39 in.

40 in.

41 in.

42 in.

43 in.

44 in.

45 in.

46 in.

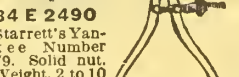
47 in.

48 in.

49 in.

50 in.

Outside Calipers



84 E 2490 — Starrett's Yankee Number 79. Solid nut. Weight, 2 to 10 ounces.

Size

4 in.

5 in.

6 in.

7 in.

8 in.

9 in.

10 in.

11 in.

12 in.

13 in.

14 in.

15 in.

16 in.

17 in.

18 in.

19 in.

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40 in.

41 in.

42 in.

43 in.

44 in.

45 in.

46 in.

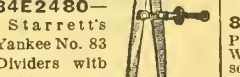
47 in.

48 in.

49 in.

50 in.

Dividers



Durable, Substantial and Reliable Padlocks



Corbin Padlock
\$1.48
84 E 3983—Rust-resisting black finished heavy iron case with Rustless chain. Brass self-locking shackle. Two flat keys. Serviceable and secure outdoor lock. Keys all different. Width, 2 inches. Shipping weight, 13 ounces.
84 E 3984—Without Chain. \$1.35



Steel Padlock
84 E 3950—Wrought steel case. Ebony black finish. Malleable self-locking shackle. Two flat steel keys. Width of lock, 2 inches. Shipping weight, 4 ounces. 15c
84 E 3952—Large wrought steel. Ebony black finish. Brass inside works. Width, 2½ inches. Shipping weight, 8 ounces. 25c



Brass Plated Lock
84 E 3955—Wrought steel. Width, 2½ inches. With two keys that fit in the pin in key hole. A neat, serviceable lock. Shipping weight, 8 ounces. 29c



Steel Padlock
84 E 3966—Wrought steel japanned. Self-locking. Two corrugated flat steel keys. Good secure mechanism. Width, 2 inches. Shipping weight, 10 ounces. 34c



Keyless Combination Padlock
95c
A good combination lock that will last a long time. No keys to lose. No tumblers, no rivets, no springs, no bolts, nothing to get out of order.
84 E 3995—Diameter, 1¼ inches. Shipping weight, 7 ounces. Nickle. 95c
84 E 3996—Same as above—solid brass. Diameter, 1¼ inches. Shipping weight, 10 ounces. \$1.10



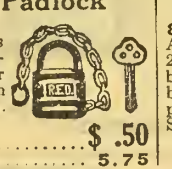
Six Lever Lock
84 E 3962—A good padlock that will give many years of satisfactory service. Wrought steel case and chain. Japanned. Self-locking. Two keys. Width, 2 inches. Shipping weight, 12 ounces. 55c
84 E 3958—Same as above, without chain. 44c



Brass Padlock
84 E 3975—Brass case, self-locking steel shackle. Two corrugated steel keys. Width, 2 inches. Attractive and secure. Shipping weight, 1 pound. A splendid lock for your garage or barn. 74c



Brass R. F. D. Padlock
84 E 3988—Cast brass case with brass chain. Self-locking. Two keys. Master key furnished with each dozen locks. Width, 1½ inches. Shipping weight, 6 ounces. \$.50
Dozen 5.75



Brass Padlock
84 E 3968—Extra heavy. All brass self-locking. Width, 2 inches. With chain and two brass keys. Excellent for boats and in all exposed places. Nothing to rust. Shipping weight, ¾ pound. 75c



Brass Chest Locks
84 E 4018—Brass. Width, 2 inches. For ¼-inch wood. Two keys. Shipping weight, 1 ounce. 95c
84 E 4019—Brass. Width, 2½ inches. For ½, 1 or 1½ inch wood. \$1.20



Chest Locks
84 E 4026—Iron. Self-locking. One key. Brass escutcheon. 3½ inches wide, 2½ inches deep. Shipping weight, 8 ounces. 79c



Chest Locks
Shipping weight, 1 to 4 ounces. 1 key.
84 E 4012—Brass face. Width, 1½ inches. Key pin, ½ inch from top. 25c
84 E 4015—Brass. Width, 2½ inches. Key pin, ¾ inch from top. 37c



Brass Chest Locks
84 E 4030—Two keys. Size, 2½x2 inches. For wood 1½, 1¼ or 1 inch. Shipping weight, 5 ounces. Give size. \$2.25



Wardrobe Locks
For right or left-hand doors. Shipping weight, 3 ounces.
84 E 4038—Iron. Width, 1½ inch. 38c
84 E 4039—Brass. Width, 2 inches. 64c



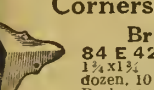
Drawer Lock
For ¼-inch wood. To center of cylinder, ¾ inch. 2 keys. Shipping weight, 3 ounces.
84 E 4045—Iron, 2½ inches wide, 1½ inches deep. Shipping weight, 2 ounces. 10c



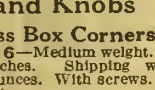
Cupboard Lock
1 Key
84 E 4045—Iron, 2½ inches wide, 1½ inches deep. Shipping weight, 2 ounces. 10c




Trunk Locks
84 E 4070—Size, 4x3 inches. Solid brass. Size closed. 6¼x1¼ inches. 2 keys. Shipping weight, 14 ounces. 98c



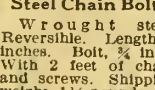
Brass Box Corners
84 E 4216—Medium weight. Size, 1½x1½ inches. Shipping weight, dozen, 10 ounces. With screws. Package of 4. 48c



84 E 4217—Size, 2½x2½ inches. Extra heavy brass. Shipping weight, dozen, 2 pounds. With screws. 32c




84 E 4218—Size, 2½x2½ inches. Extra heavy brass. Shipping weight, dozen, 2 pounds. With screws. \$.33
Dozen 3.75

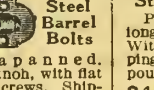


Glass Drawer Knobs
84 E 4196—Octagon glass knob with bolt running through center. Shipping weight, dozen, 1 to 3 pounds. Give size.

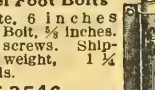
| Diameter | Each | Dozen |
|----------|------|--------|
| 1 inch | 19c | \$1.95 |
| 1½ inch | 25c | 2.90 |
| 1¾ inch | 29c | 3.25 |



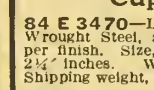
Brass Knobs
84 E 4193—Brass knob. With bolt and nut. Shipping weight, dozen, 8 to 14 ounces. Diameter, inches. 1 Dozen \$1.44 \$1.65



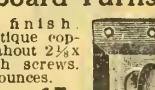
84 E 4190—Polished. Brass. Shipping weight, dozen, 2 to 8 ounces. Diameter, inches. ¾ 34c 1 38c 1½ 52c




White Porcelain Shutter Knobs
84 E 4200—With screws. Diameter, inches. ¾, 1, 1½, 1¾. Shipping weight, dozen, 2, 4, 9. Per package of 4. 12c 13c 18c 22c



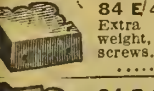
Wood Drawer Knobs
84 E 4202—Hardwood. Knobs. Can be stained or finished any color. With screw and spur. Shipping weight, package, 2 ounces. Diameter, inches. 1½ 12c 1½ 15c 2 19c
84 E 4201—Oak finish. 1½x1½ inches. Package of 4. 16c 19c 24c
84 E 4203—Mahogany finished. Package of 4. 17c 20c 25c



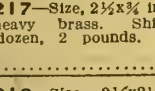
Escutcheons
84 E 4180—Escutcheons. Polished cast brass, 2½x1 inch. Shipping weight, dozen, 3 ounces. 8c
Dozen 84c
84 E 4182—Escutcheons. Polished cast brass. 1½x1½ inches. Shipping weight, dozen, 4 ounces. 8c
Dozen 84c




Drawer Pull
84 E 4154—Black enamel wood drop handle, with brass escutcheon. Per package of four 49c



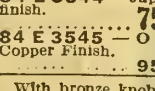
Steel Chain Bolts
Wrought steel. Reversible. Length, 6 inches. Bolt, ¾ inch. With 2 feet of chain and screws. Shipping weight, 1½ pounds.
84 E 3544—Japan finish. 75c
84 E 3545—Old Copper Finish. 95c



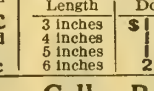
Steel Barrel Bolts
84 E 3520—Japanned. Steel plate brass knob, with flat staple. Without screws. Shipping weight, 6 to 12 ounces.
Length Dozen Each
3 inches \$1.30 12c
4 inches 1.70 15c
5 inches 1.90 18c
6 inches 2.25 20c



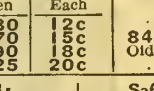
Steel Foot Bolts
Plate, 6 inches long. Bolt, ¾ inch. With screws. Shipping weight, 1½ pounds.
84 E 3546—Japanned finish. 68c
84 E 3547—Old Copper Finish. 85c



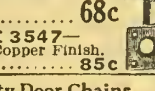
Cellar Bolts
84 E 3516—Polished bronze finish. Shipping weight, 8 ounces. 33c
84 E 3517—Antique copper finish. Shipping weight, 8 ounces. 33c
84 E 3518—Lemon brass finish. 33c
Dozen 1.10



Safety Door Chains
Wrought steel, plated, finished. Size of plate, 6¼x1½ inches. With screws. Shipping weight, 3 ounces.
84 E 3531—Antique copper plated. 62c
84 E 3538—Dull lemon brass plated. 62c



Cupboard Turns
84 E 3470—L finish. Wrought steel, antique copper finish. Size, about 2½x2½ inches. With screws. Shipping weight, 6 ounces. 17c
84 E 3472—F finish. Lemon brass on solid bronze. 55c
84 E 3533—Nickle-plated on brass. Polished. Size 1½x1½ inches. With screws. Shipping weight, about 4 ounces. 57c
84 E 3460—L finish. Wrought steel, antique copper finish. Size, about 2½x1½ inches. With screws. Shipping weight, 3 ounces. 9c



Elbow Catches
84 E 3480—For inside of china closet and cupboard doors. Japanned. Iron. Without screws. Shipping weight, per dozen, 1½ pounds. Dozen. 50c



Brass Pulls
84 E 4158—Width, 3½ inches. Shipping weight, 4 ounces. Per pair. 25c
84 E 4104—Polished cast brass 4½x1½ inch. \$.30
Dozen 3.50



84 E 4120—Stamped Brass. Gilt finish. Size, 4x1½ inches. Per package of 4. 25c



84 E 4112—Polished cast brass. Size, 4x2½ inches. \$.14
Dozen 1.58



Drawer Pulls—Solid Bronze
Shipping weight, dozen, 1 pound. Screws included.
84 E 3501—Polished antique copper. Size, 3½ inches. Dozen. \$1.45
84 E 3502—Dull Lemon Brass. Size, 3½ inches. Dozen. \$1.45
Nickle-plated Brass. Shipping weight, 1 pound.
84 E 3534—Nickle-plated and polished on brass. Size, 3¼x1½ inches. Each. 13c
84 E 3505—Polished antique copper plated. Size, 3¼x1½ inches. Dozen. 48c
84 E 3506—Dull lemon brass plated. Size, 3¼x1½ inches. Dozen. 48c



Trap Door Ring
84 E 4255—Steel Japanned. Plate, 3½ x 3½ inches. With screws. Shipping weight, 10 ounces. 27c



City Mail Box
84 E 4726—Heavy sheet steel, dull black rust-resisting finish. Height, 11½ inches. Width, 6 inches. Depth, 2 inches. Covered letter slot. Self-locking door. Two flat keys. Spring clip for holding papers. Glass panel with card holder. Shipping weight, 2 pounds. 75c



R. F. D. Mail Box
98c
184 E 4741—Heavy galvanized sheet steel. Size, 18½ inches long, 6¼ inches wide and 7½ inches high. Approved box for R. F. D. Service. Has coin holder and signal flag. Shipping weight, 10 pounds. Mailable. 98c
184 E 4743—Larger and heavier construction. For packages. Size, 23½ inches long, 11 inches wide, 14 inches high. Shipping weight, 25 pounds. Not Mailable. \$2.98
A Cardboard Stencil with Your Name Included Free, when Requested.



Barn Equipment Reduced Prices



Corner Salt Dish
84 E 5664—Occupies little space and is very durable. Made of cast iron. Japanned black. Size, 5x5 inches. Depth, 4 inches. Shipping weight, 4 pounds. 35c



Corner Feed Box
184 E 5660—Heavy cast iron. Flat flange top prevents waste. Painted black. Size, 15x15 inches. Depth, 8 inches. Shipping weight, 26 pounds. \$1.45

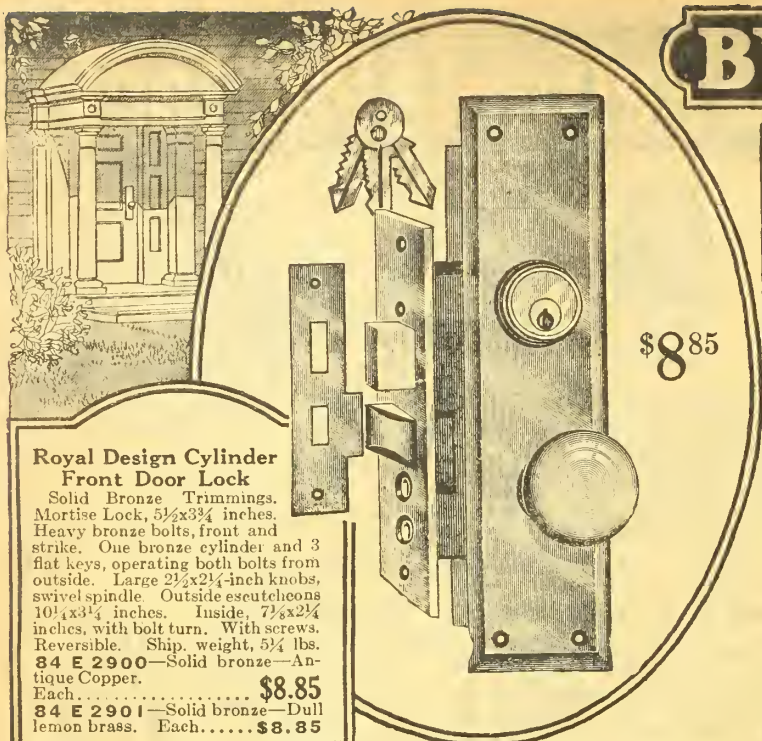


Corner Feed Box
184 E 5661—Heavy cast iron. With roll flange. Painted black. Size, 15x15 inches. Depth, 8 inches. Shipping weight, 23 pounds. \$1.55

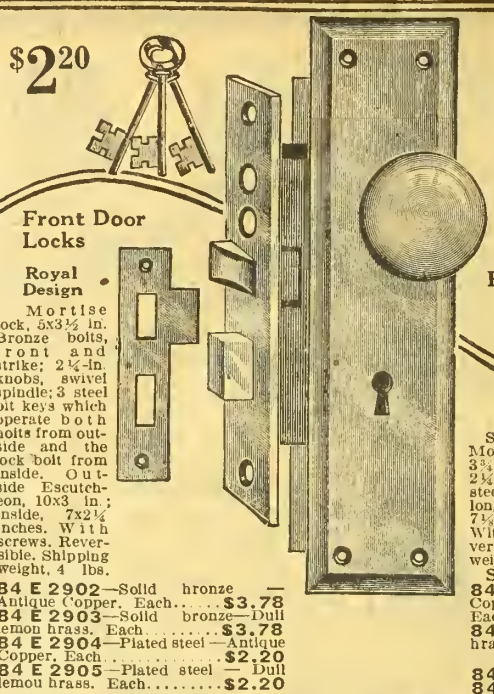


184 E 5666—For Center Stall. Heavy wrought steel. Size, about 33 inches wide, 21 inches high, 18 inches deep. Shipping weight, 35 pounds. \$1.95

BUILDERS HARDWARE

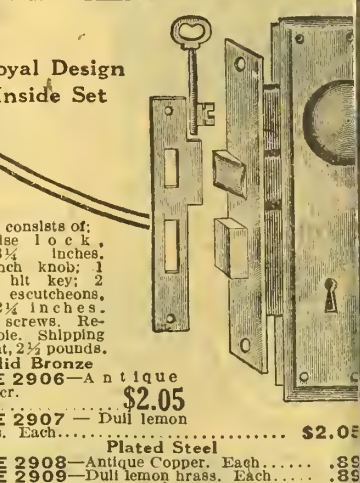


Royal Design Cylinder Front Door Lock
Solid Bronze Trimmings. Mortise Lock, 5 1/2 x 3 3/4 inches. Heavy bronze bolts, front and strike. One bronze cylinder and 3 flat keys, operating both bolts from outside. Large 2 1/2 x 2 1/4 inch knobs, swivel spindle. Outside escutcheons 10 1/4 x 3 1/4 inches. Inside, 7 1/2 x 2 1/4 inches, with bolt turn. With screws. Reversible. Ship. weight, 5 1/4 lbs.
84 E 2900—Solid bronze—Antique Copper. Each.....\$8.85
84 E 2901—Solid bronze—Dull lemon brass. Each.....\$8.85



Front Door Locks
Royal Design
Mortise lock, 5 1/2 x 3 3/4 inches. Bronze bolts, front and strike; 2 1/4 inch knobs, swivel spindle; 3 steel bit keys which operate both bolts from outside and the lock bolt from inside. Outside escutcheon, 10 1/4 x 3 1/4 inches; inside, 7 1/2 x 2 1/4 inches. With screws. Reversible. Shipping weight, 4 lbs.
84 E 2902—Solid bronze—Antique Copper. Each.....\$3.78
84 E 2903—Solid bronze—Dull lemon brass. Each.....\$3.78
84 E 2904—Plated steel—Antique Copper. Each.....\$2.20
84 E 2905—Plated steel—Dull lemon brass. Each.....\$2.20

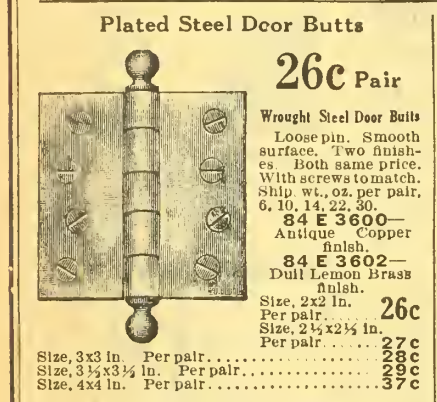
Description of Finishes
Solid Bronze Hardware
Is the most durable and lasts a life time. Not rust, shown in Antique Copper and lemon brass. These are the most popular finishes.



Royal Design Inside Set
Set consists of: Mortise lock, 5 1/2 x 3 3/4 inches; 2 1/4 inch knob; 1 steel bit key; 1 long escutcheon, 7 1/2 x 2 1/4 inches. With screws. Reversible. Shipping weight, 2 1/2 pounds.
Solid Bronze
84 E 2906—Antique Copper. Each.....\$2.05
84 E 2907—Dull lemon brass. Each.....\$2.05
Plated Steel
84 E 2908—Antique Copper. Each.....\$2.05
84 E 2909—Dull lemon brass. Each.....\$2.05

We guarantee all Locks to be perfect in every way.

Plated Steel Door Butts

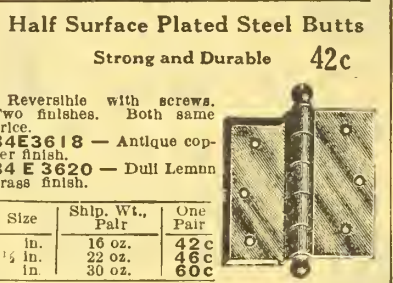


26c Pair
Wrought Steel Door Butts. Loose pin. Smooth surface. Two finishes. Both same price. With screws to match. Ship. wt., oz. per pair, 6, 10, 14, 22, 30.
84 E 3600—Antique Copper finish. 26c
84 E 3602—Dull Lemon Brass finish. 26c
Size, 2x2 in. Per pair.....
Size, 2 1/2 x 2 1/2 in. Per pair.....
Size, 3x3 in. Per pair.....
Size, 3 1/2 x 3 1/2 in. Per pair.....
Size, 4x4 in. Per pair.....

Half Surface Steel Butts
One half is screwed on surface of door. Reversible. With screws. Two finishes. Both same price.
Order by these numbers.
84 E 3614—Antique copper finish. 42c
84 E 3616—Dull lemon brass finish. 42c

| Size In. | Ship. Wt. Pair | One Pair |
|----------|----------------|----------|
| 3 | 20 oz. | 39c |
| 3 1/2 | 28 oz. | 42c |
| 4 | 36 oz. | 54c |

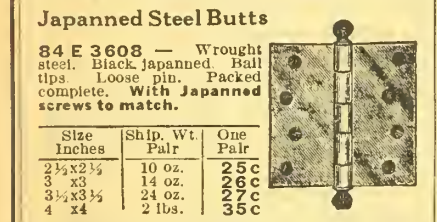
Half Surface Plated Steel Butts
Strong and Durable 42c



Reversible with screws. Two finishes. Both same price.
84 E 3618—Antique copper finish. 42c
84 E 3620—Dull Lemon brass finish. 42c

| Size | Ship. Wt. Pair | One Pair |
|-----------|----------------|----------|
| 3 in. | 16 oz. | 42c |
| 3 1/2 in. | 22 oz. | 46c |
| 4 in. | 30 oz. | 60c |

Japanned Steel Butts



84 E 3608—Wrought steel. Black japanned. Ball tips. Loose pin. Packed complete. With japanned screws to match.

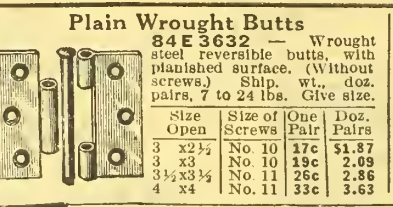
| Size Inches | Ship. Wt. Pair | One Pair |
|---------------|----------------|----------|
| 2 1/2 x 2 1/2 | 10 oz. | 25c |
| 3 x 3 | 14 oz. | 26c |
| 3 1/2 x 3 1/2 | 24 oz. | 27c |
| 4 x 4 | 2 lbs. | 35c |

Light Steel Butts



84 E 3625—Wrought Steel Butts. Antique copper finish. For cabinet work, china closets, doors, etc. Ship. wt., pair, 4 and 6 oz. with screws to match. Size, Open 2x2. Pair.....27c
Size, Open 2 1/2 x 2 1/2. Pair.....34c
84 E 3535—Nickel-plated. Size 2 1/2 x 2 1/2 in. with screws to match. Pair.....39c
Size 3 1/2 x 3 1/2 in. Pair.....46c

Plain Wrought Butts



84 E 3632—Wrought steel reversible butts, with planished surface. (Without screws.) Ship. wt., doz. pairs, 7 to 24 lbs. Give size.

| Size Open | Size of Screws | One Pair | Doz. Pairs |
|---------------|----------------|----------|------------|
| 3 x 2 1/2 | No. 10 | 17c | \$1.87 |
| 3 x 3 | No. 10 | 19c | 2.09 |
| 3 1/2 x 3 1/2 | No. 11 | 26c | 2.86 |
| 4 x 4 | No. 11 | 33c | 3.63 |

Light Narrow Butts



84 E 3634—Plain Wrought Steel. Loose Pin. Without screws. Ship. wt., dozen, 18 to 65 ounces. Give size.

| Size In. | Size Open | Size of Screws | Doz. Pairs | One Pair |
|----------|-----------|----------------|------------|----------|
| 1 1/2 | 1 1/2 | 5 | \$5.66 | 6c |
| 2 | 1 1/2 | 6 | .88 | 8c |
| 2 1/2 | 1 1/2 | 6 | 1.32 | 12c |
| 3 | 2 | 6 | 1.54 | 14c |

Narrow Steel Butts



84 E 3636—Plain Wrought Steel Butts, fast joints. Without screws. Ship. wt., pair, 2 to 8 oz. Give size.

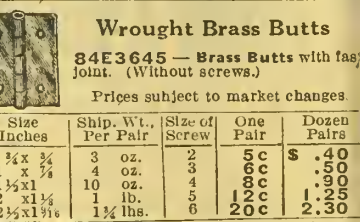
| Size | Size of Screws | Per Pair | Per Dozen |
|-------|----------------|----------|-----------|
| 1 1/2 | 3 | 3c | \$.33 |
| 2 | 5 | 5c | .55 |
| 2 1/2 | 6 | 6c | .66 |
| 3 | 7 | 7c | .77 |

Cellar Window Set



84 E 3663—Consisting of pair 2 in. steel butts, one cellar window fastener, and one 2 1/2 in. wire hook and eye all japanned to prevent rust. With screws. Ship. wt., set, 10 oz. One set.....\$.18
Dozen sets.....1.98

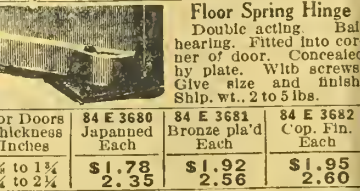
Wrought Brass Butts



84 E 3645—Brass Butts with fast joint. (Without screws.)

| Size Inches | Ship. Wt. Per Pair | Size of Screw | One Pair | Dozen Pairs |
|-------------|--------------------|---------------|----------|-------------|
| 3/4 x 3/4 | 3 oz. | 2 | 5c | \$.40 |
| 1 x 1 | 4 oz. | 3 | 6c | .50 |
| 1 1/2 x 1 | 10 oz. | 4 | 12c | 1.25 |
| 2 x 1 1/2 | 1 lb. | 5 | 20c | 2.30 |

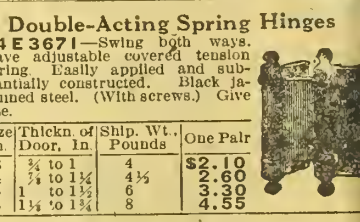
Floor Spring Hinge



Double acting. Ball bearing. Fitted into corner of door. Concealed by plate. With screws. Give size and finish. Ship. wt., 2 to 5 lbs.

| For Doors Thickness Inches | 84 E 3680 Japanned Each | 84 E 3681 Bronze plad Each | 84 E 3682 Cop. Fin. Each |
|----------------------------|-------------------------|----------------------------|--------------------------|
| 1 1/4 to 1 1/2 | \$1.78 | \$1.92 | \$1.95 |
| 1 1/2 to 2 | 2.35 | 2.56 | 2.60 |

Double-Acting Spring Hinges



84 E 3671—Swing both ways. Have adjustable covered tension spring. Easily applied and substantially constructed. Black japanned steel. (With screws.) Give size.

| Size In. | Thckn. In. | Ship. Wt. Pounds | One Pair |
|----------|----------------|------------------|----------|
| 3 | 1/4 to 1 | 4 | \$2.10 |
| 4 | 1/4 to 1 1/4 | 4 1/2 | 2.60 |
| 5 | 1 to 1 1/2 | 6 | 3.30 |
| 6 | 1 1/4 to 1 1/2 | 8 | 4.55 |

Reversible Rim Locks



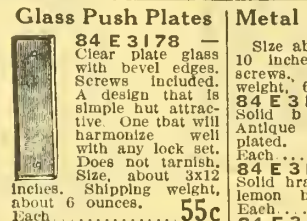
Economy Door Lock Set
84 E 3181 You often find use for this style of Lock. Reversible cast iron rim lock, 4 1/2 x 3 1/4 inches, with jet black knobs, one key and keyhole plate. With screws. Complete set in box. Shipping weight, 2 1/2 pounds. Set.....42c
84 E 3180—Lock only, without knob.....27c

Rim Locks—Wrought Steel



84 E 3186—Reversible. Size, 4 1/2 x 3 1/2 inches. Iron bolts, nickel-plated steel key, with screws. Japanned keyhole plate. Shipping weight, 18 ounces. (Without knobs.) Each.....58c
84 E 3185—Reversible Lock. Size 4x3 inches. Light, but very strong. Iron bolts. Tinned key. With keyhole plate and screws. Shipping weight, 1 pound. (Without knob.) Each.....43c
84 E 3190—Reversible lock. Size 4 1/2 x 3 1/2 inches. With stop. Iron bolts. Tinned key. With keyhole plate and screws. Shipping weight, 1 pound. (Without knob.) Each.....25c

Glass Push Plates



84 E 3178—Clear plate glass with bevel edges. Screws included. A design that is simple but attractive. One that will harmonize well with any lock set. Does not tarnish. Size, about 3x12 inches. Shipping weight, about 6 ounces. Each.....55c

Automatic Door Holder



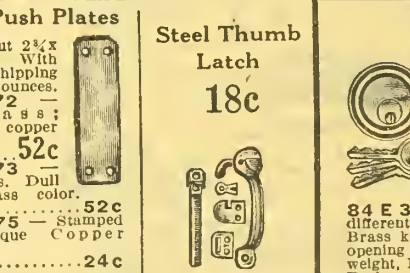
Locks and releases by foot. Will not injure the floor. Length 4 1/2 inches; bolt has 1 1/2 inch drop. Rubber tip. Shipping weight 12 ounces.
84 E 3692—Amber bronzed G finish. 45c
84 E 3693—Polished Antique Copper. L finish. Each.....74c
84 E 3694—Plated Dull Lemon Brass. P finish. Each.....74c

Push Button Door Bell



84 E 4710—Easily attached to the door casing. Needs no winding or battery. Diameter, about 4 inches. Nickel-plated, with polished solid bronze push button. Shipping weight, 2 pounds. Each.....\$1.05

Metal Push Plates



Size about 2 1/2 x 10 inches. With screws. Shipping weight, 6 ounces.
84 E 3172—Solid brass; Antique copper plated. Each.....52c
84 E 3173—Solid brass. Dull lemon brass color. Each.....52c
84 E 3175—Stamped steel. Antique Copper plated. Each.....24c

Steel Thumb Latch



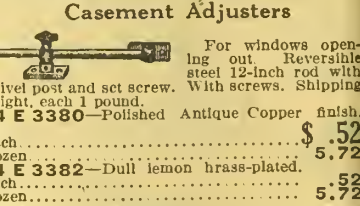
18c
All wrought steel, japanned. With screws. Shipping weight, 8 and 16 ounces.
84 E 3278—Length, 5 1/2 inches. Each.....18c
84 E 3279—Length, 7 1/2 inches. Each.....27c

Rotary Door Bell



84 E 4718—Rings like an electric bell by simply turning the knob. Diameter of gong 3 inches; nickel-plated steel. Complete with bronze plate and turn, polished antique copper finish, with square bar connecting bell with turn, which may be cut to length. Size of plate, 1 1/2 x 4 inches. Shipping weight, 1 1/2 pounds. Each.....55c

Caseament Adjusters



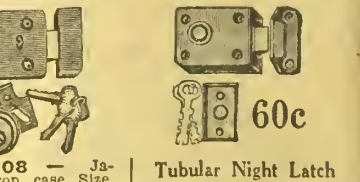
For windows opening out. Reversible steel 12-inch rod with swivel post and set screw. With screws. Shipping weight, each 1 pound.
84 E 3380—Polished Antique Copper finish. Each.....\$.52
Dozen.....5.72
84 E 3382—Dull lemon brass-plated. Each.....\$.52
Dozen.....5.72

Safety Night Latches



Cylinder Night Latch
84 E 3210—A high grade, secure latch. Keys all different. Japanned iron case. Size, 3 1/2 x 2 1/2 inches. Brass knob and cylinder. For doors 1 1/2 x 2 1/2 inches; opening in or out, two strikes. With screws. Shipping weight, 1 1/2 pounds. Each.....\$2.25

Tubular Night Latch



84 E 3208—Japanned iron case. Size, 2 1/2 inches. Brass plated knob and cylinder. For doors 1 1/2 to 2 inches, opening in or out, two strikes. Shipping weight, 1 1/2 pounds. Each.....\$1.65

Reversible Mortise Knob Latch



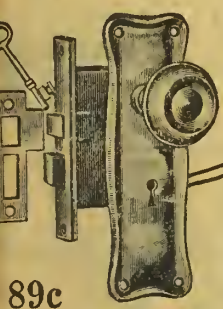
84 E 3221—Size, 1 1/2 x 3 1/2 inches. Brass front and strike-plate bronze bolt. Cannot be used with a key. Shipping weight, 8 ounces (Without knobs) Each.....35c

SERVICEABLE AND ATTRACTIVE

Description of Finishes

Plated Steel Hardware

Good standard line at money saving prices. Thousands of sets in use by satisfied customers. No popular finishes to choose from—Antique copper and Dull lemon brass.

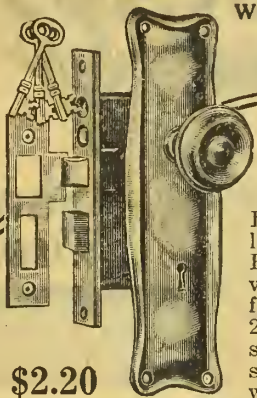


**Winnetka Design
Inside Door
Lock**

Inside Door Lock. Mortise lock, 3 1/2 x 3 1/2 inches. Reversible. With 2 1/2-inch knobs. 1 steel bit key, 2 long Escutcheons, 7 1/2 x 2 1/2 inches. With screws. One of the finest and neatest designs made. Adapted for any kind of home or public building. Shipping weight, 2 pounds.

89c

| | | |
|----------------------------|------------|--------|
| Antique Copper | 84 E 2948— | \$2.05 |
| 84 E 2949—Dull lemon brass | | 2.05 |
| Plated Steel | | |
| 84 E 2950—Antique Copper | | .89 |
| 84 E 2951—Dull lemon brass | | .89 |



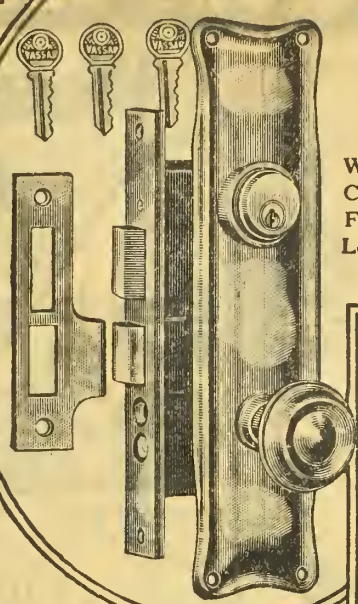
**Winnetka Front
Door Set**

Front Door Lock Set. Mortise lock, 5 x 3 1/2 inches. Heavy bronze reversible bolts, front and strike. 2 1/4-inch knobs, swivel spindle. 3 steel bit keys which operate

\$2.20

both bolts from outside and the lock bolt from inside. Outside Escutcheon, 10 x 3 inches. Inside, 7 3/4 x 2 1/2 inches. With screws. Shipping weight, 3 1/4 pounds.

| | |
|----------------------------|--------|
| 84 E 2944—Antique Copper | \$3.78 |
| 84 E 2945—Dull lemon brass | 3.78 |
| Plated Steel | |
| 84 E 2946—Antique Copper | 2.20 |
| 84 E 2947—Dull lemon brass | 2.20 |



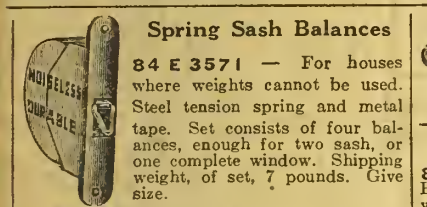
**Winnetka
Cylinder
Front Door
Lock**

Cylinder Front Door Lock A Very Popular Seller

Cylinder Front Door Lock. Solid Bronze Trimmings. Mortise Lock, 5 1/2 x 3 3/4 inches. Reversible. Heavy bronze bolts, front and strike. One bronze cylinder and 3 flat keys, operating both bolts from outside. Large, 2 1/2 x 2 1/4-inch knobs, swivel spindle. Outside Escutcheon, 11 1/2 x 3 inches. Inside, 7 3/4 x 2 1/2 inches, bolt turn and screws. Shipping weight, 5 1/2 pounds.

| | |
|----------------------------------|--------|
| 84 E 2942—Antique Copper, each | \$8.85 |
| 84 E 2943—Dull lemon brass. Each | \$8.85 |

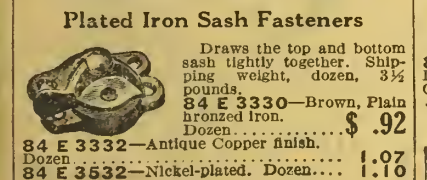
State Finish Desired When Ordering Any Kind of Lock Set



Spring Sash Balances

84 E 3571—For houses where weights cannot be used. Steel tension spring and metal tape. Set consists of four balances, enough for two sash, or one complete window. Shipping weight, of set, 7 pounds. Give size.

| Wt. of Each Sash Glazed | Length of Tape, In. | Set of 4 |
|-------------------------|---------------------|----------|
| 4 to 5 lbs. | 30 | \$1.95 |
| 6 to 8 lbs. | 30 | 2.10 |
| 8 to 10 lbs. | 30 | 2.20 |
| 10 to 11 lbs. | 46 | 2.55 |
| 12 to 13 lbs. | 46 | 2.68 |
| 14 to 15 lbs. | 46 | 2.75 |
| 16 to 17 lbs. | 46 | 2.90 |
| 18 to 19 lbs. | 46 | 3.10 |
| 22 to 23 lbs. | 46 | 3.35 |



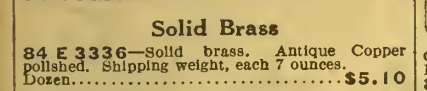
Plated Iron Sash Fasteners

Draws the top and bottom sash tightly together. Shipping weight, dozen, 3 1/2 pounds.

84 E 3330—Brown, Plain bronzed iron. Dozen.....\$.92

84 E 3332—Antique Copper finish. Dozen.....1.07

84 E 3332—Nickel-plated. Dozen.....1.07



Solid Brass

84 E 3336—Solid brass. Antique Copper polished. Shipping weight, each 7 ounces. Dozen.....\$5.10



Steel Sash Fasteners

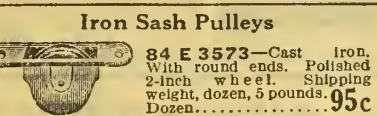
Draws the top and bottom sash tightly together. Stamped steel, will not break. Shipping weight, dozen, 3 1/2 pounds.

84 E 3340—Amber bronzed. Dozen.....80c

84 E 3341—Bronze-plated natural color. Dozen.....95c

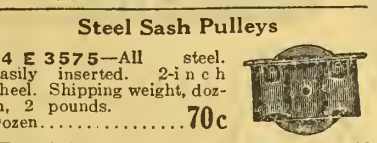
84 E 3342—Antique copper-plated. Dozen.....95c

84 E 3343—Dull lemon brass, plated. Dozen.....95c



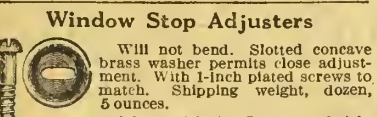
Iron Sash Pulleys

84 E 3573—Cast iron. With round ends. Polished 2-inch wheel. Shipping weight, dozen, 5 pounds. Dozen.....95c



Steel Sash Pulleys

84 E 3575—All steel. Easily inserted. 2-inch wheel. Shipping weight, dozen, 2 pounds. Dozen.....70c



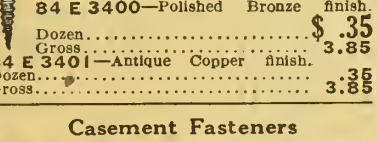
Window Stop Adjusters

Will not bend. Slotted concave brass washer permits close adjustment. With 1-inch plated screws to match. Shipping weight, dozen, 5 ounces.

84 E 3400—Polished Bronze finish. Dozen.....\$.35

84 E 3401—Antique Copper finish. Dozen.....3.85

84 E 3401—Antique Copper finish. Dozen.....3.85



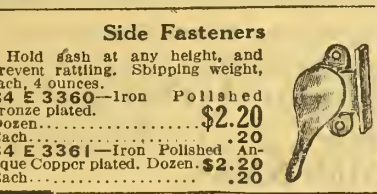
Casement Fasteners

For right or left hand. Size, 1 1/2 x 1 1/2 inches. With screws. Shipping weight, each, 6 ounces.

84 E 3372—Polished Antique. Dozen.....\$.22

84 E 3374—Dull lemon brass. Each.....2.40

84 E 3374—Dull lemon brass. Each.....2.40



Side Fasteners

Hold sash at any height, and prevent rattling. Shipping weight, each, 4 ounces.

84 E 3360—Iron Polished bronze plated. Dozen.....\$2.20

84 E 3361—Iron Polished Antique Copper plated. Dozen.....\$2.20

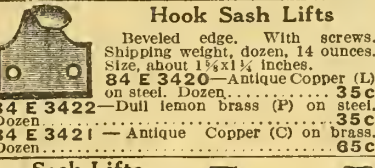
84 E 3361—Iron Polished Antique Copper plated. Dozen.....\$2.20



Braided Cotton Sash Cord

Extra quality, long fiber cotton sold only in bundles of about 100 feet. (Prices subject to market changes.)

| Art. No. | Size | Diam. | Ship. Wt. | Bundle |
|-----------|------|-------|------------|--------|
| 84 E 3587 | 7 | 3/32 | 1 1/4 lbs. | \$.67 |
| 84 E 3588 | 8 | 1/8 | 2 1/4 lbs. | .83 |
| 84 E 3589 | 10 | 1/4 | 3 lbs. | 1.05 |



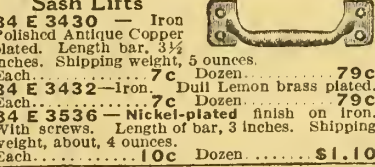
Hook Sash Lifts

Beveled edge. With screws. Shipping weight, dozen, 14 ounces. Size, about 1 1/2 x 1 1/4 inches.

84 E 3420—Antique Copper (L) on steel. Dozen.....35c

84 E 3422—Dull lemon brass (P) on steel. Dozen.....35c

84 E 3421—Antique Copper (C) on brass. Dozen.....65c

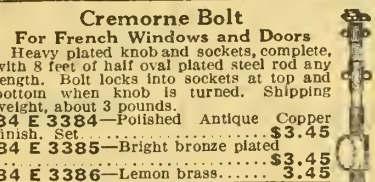


Sash Lifts

84 E 3430—Iron Polished Antique Copper plated. Length bar, 3 1/2 inches. Shipping weight, 5 ounces. Dozen.....79c

84 E 3432—Iron Dull Lemon brass plated. Each.....7c

84 E 3536—Nickel-plated finish on iron. With screws. Length of bar, 3 inches. Shipping weight, about 4 ounces. Each.....10c Dozen.....\$1.10



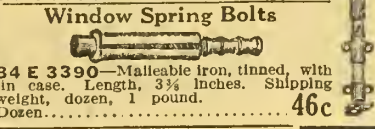
Cremorne Bolt

For French Windows and Doors. Heavy plated knob and sockets, complete, with 8 feet of half oval plated steel rod any length. Bolt locks into sockets at top and bottom when knob is turned. Shipping weight, about 3 pounds.

84 E 3384—Polished Antique Copper finish. Set.....\$3.45

84 E 3385—Bright bronze plated. Set.....\$3.45

84 E 3386—Lemon brass. Set.....\$3.45



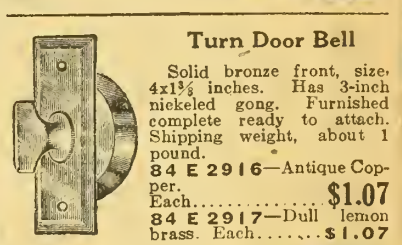
Window Spring Bolts

84 E 3390—Malleable iron, tinned, with tin case. Length, 3 1/2 inches. Shipping weight, dozen, 1 pound. Dozen.....46c

Nickel-Plated Bath Room Door Lock



84 E 2978—Bathroom slide has nickel-plated, brass escutcheon, size, 6x2 inches. Other side will have brass escutcheon and knob to match any of our brass inside door sets that you mention. Mortise lock, 3 1/2 x 3 1/4 inches. Nickel-plated brass face. With key for outside. Shipping weight, 2 1/2 pounds. Set.....\$2.48

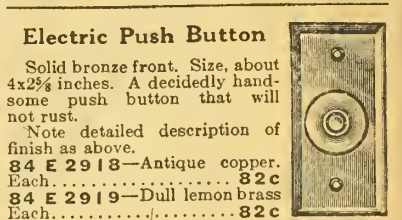


Turn Door Bell

Solid bronze front, size, 4x1 1/2 inches. Has 3-inch nickel-plated gong. Furnished complete ready to attach. Shipping weight, about 1 pound.

84 E 2916—Antique Copper. Each.....\$1.07

84 E 2917—Dull lemon brass. Each.....\$1.07



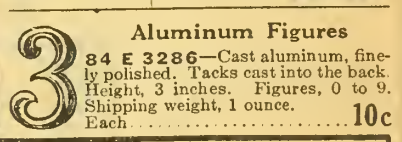
Electric Push Button

Solid bronze front. Size, about 4x2 1/2 inches. A decidedly handsome push button that will not rust.

Note detailed description of finish as above.

84 E 2918—Antique copper. Each.....82c

84 E 2919—Dull lemon brass. Each.....82c



Aluminum Figures

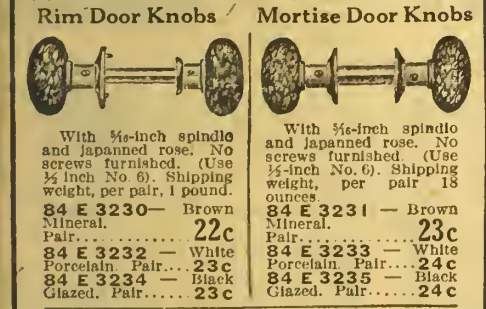
84 E 3286—Cast aluminum, finely polished. Packs cast into the back. Height, 3 inches. Figures, 0 to 9. Shipping weight, 1 ounce. Each.....10c



Door Knobs

Attractive Glass Door Knobs

84 E 3295—For use with mortise locks. Plain, 2 1/2 inches. Colonial glass knobs. With 2-inch lemon brass door plates. With screws. Extensively used for bedroom doors. Shipping weight, 1 1/2 ounces. One pair.....\$2.15



Rim Door Knobs

With 3/8-inch spindle and japanned rose. No screws furnished. (Use 1/2 inch No. 6). Shipping weight, per pair, 1 pound.

84 E 3230—Brown Mineral. Pair.....22c

84 E 3232—White Porcelain. Pair.....23c

84 E 3234—Black Glazed. Pair.....23c

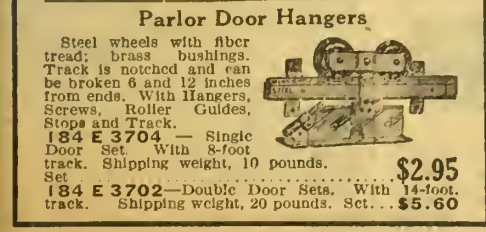
Mortise Door Knobs

With 3/8-inch spindle and japanned rose. No screws furnished. (Use 1/2 inch No. 6). Shipping weight, per pair 18 ounces.

84 E 3231—Brown Mineral. Pair.....23c

84 E 3233—White Porcelain. Pair.....24c

84 E 3235—Black Glazed. Pair.....24c

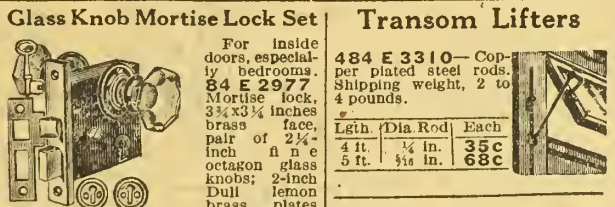


Parlor Door Hangers

Steel wheels with fiber tread; brass bushings. Track is notched and can be broken 6 and 12 inches from ends. With Hangers, Screws, Roller Guides, Stops and Track.

84 E 3704—Single Door Set. With 8-foot track. Shipping weight, 10 pounds. Set.....\$2.95

84 E 3702—Double Door Sets. With 14-foot track. Shipping weight, 20 pounds. Set.....\$5.60



Glass Knob Mortise Lock Set

For inside doors, especially bedrooms.

84 E 2977—Mortise lock, 3 1/2 x 3 1/4 inches brass face. Pair of 2 1/4-inch octagonal glass knobs; 2-inch Dull lemon brass plates. Shipping weight, 2 1/2 pounds. Set.....\$2.95



Mortise Locks

84 E 3214—Reversible Mortise Lock. Size, 3 1/2 x 3 1/4 inches with brass front, brass bolts, nickel-plated steel key. Shipping weight 1 1/2 pounds. (With out knobs).....75c

84 E 3212—As above with steel front. Price.....35c



Store Door Locks

Plated Steel

Set comprises: one mortise lock, 4 1/2 x 3 1/2 inches; reversible; two handles, with plates about 3x14 inches and two flat keys. Shipping weight 5 pounds.

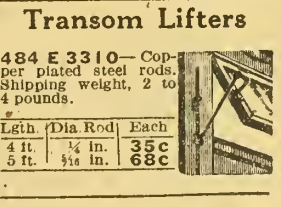
84 E 3158—Antique Copper plated on steel. Set.....\$3.35

Solid Bronze

Set comprises: One mortise cylinder lock, size, 5 1/2 x 3 3/4 inches; lock is reversible; three keys; two solid bronze handles and two solid bronze plates, size about 3x14 inches. A fine looking, durable set. Shipping weight, 6 pounds.

84 E 3151—Antique copper. Set.....\$10.45

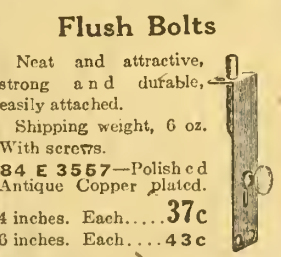
84 E 3152—Dull lemon brass. Set.....\$10.45



Transom Lifters

84 E 3310—Copper plated steel rods. Shipping weight, 2 to 4 pounds.

| Length | Dia Rod | Each |
|--------|----------|------|
| 4 ft. | 1/4 in. | 35c |
| 5 ft. | 5/16 in. | 68c |



Flush Bolts

Neat and attractive, strong and durable, easily attached.

Shipping weight, 6 oz.

With screws.

84 E 3557—Polished Antique Copper plated. 4 inches. Each.....37c

6 inches. Each.....43c



Easy Acting Door Checks

Liquid Door Check and Spring

Quietly and automatically closes the door and keeps it under control. For right or left hand doors. Automatic regulating valve. Anti-freezing liquid oil. Cold bronze finish.

84 E 3726—Size A. For light inside doors and screen doors. Shipping weight, 7 pounds. Each.....\$5.45

84 E 3727—Size B. For medium inside doors. Shipping weight, 9 pounds. Each.....\$7.10

84 E 3728—Size C. For heavy inside doors and outside doors up to 2 feet 8 inches, or 1 1/2 inches. Shipping weight, 11 pounds. Each.....\$8.15

84 E 3729—Size D. For heavy doors up to 3 feet by 7 feet by 2 inches. Shipping weight, 14 pounds. Each.....\$10.15



Eclipse Door Spring

For right or left hand doors. Tension is adjustable. Lacquered brown. Directions included.

84 E 3720—For inside or light outside doors. Shipping weight, 5 pounds. Each.....\$1.90

84 E 3721—For heavy outside doors. Shipping weight, 6 pounds. Each.....\$2.45



Eclipse Check

With detachable feet. Adjustable. For use with Eclipse spring. Lacquered brown.

84 E 3722—For ordinary doors. Diameter of cylinder, 1 1/2 inches. Shipping weight, 3 pounds. Each.....\$2.40

84 E 3723—For heavy doors. Diameter of cylinder, 2 1/2 inches. Shipping weight, 6 pounds. Each.....\$3.45

Nails-Screws-Casters-Shelf Brackets-Hooks



Easy Running Ball Casters
 84 E 4372 — Brass plated
 Diameter ball, 3/4 inches. Shipping
 weight, 8 ounces. 65c
 Set of four.
 84 E 4374 — Diameter ball, 1 1/4
 inches. Shipping weight, 1 pound. Set of four. 75c

Easy Running Ball Casters

84 E 4370 — Brass plated.
 Diameter of ball, 3/4 inches.
 Shipping weight, 6 ounces. 68c
 Set of four.
 84 E 4371 — Diameter of
 ball, 1 1/4 inches. Shipping
 weight, 1 pound. Set of four. 79c



Ball Bearing Chest Caster
 Wood wheel. For refrigerators,
 desks, etc. Without screws.
 Use sizes 8, 10 and 12. Shipping
 weight, 12 to 26 ounces.

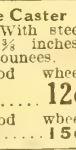
84 E 4384 — Diameter wheel, 1
 inch; plate, 1 1/4 x 1 1/4 inches. 19c
 Set of 4
 84 E 4385 — Diameter wheel, 1 1/4 inch; plate,
 1 1/4 x 1 1/4 inches. Set of 4. 28c
 84 E 4386 — Diameter wheel, 1 1/2 inches;
 plate, 2 1/4 x 1 1/4 inches. Set of 4. 43c

Ball Bearing Felt Wheel Caster
 Prevents Marrying Floors.
 84 E 4378 — A high-grade cas-
 ter for good furniture. Wheels
 are compressed pure wool felt,
 will not scratch the floor. Run
 easily and quietly. Size of sockets,
 3/4 x 1 1/4 inches. Shipping weight,
 set, about 20 ounces.
 Diameter, wheel, 1 1/4 inches.
 Set of 4. \$1.25
 Diameter, wheel, 1 1/2 inches. Set of 4. 1.35



Standard Furniture Caster

Hardwood wheels. With steel
 grip-neck sockets, 3/4 x 1 1/4 inches.
 Shipping weight, 8 to 16 ounces.
 84 E 4392 — Hardwood wheel
 1 1/4 inches. Set of 4. 12c
 84 E 4393 — Hardwood wheel
 1 1/2 inches. Set of 4. 15c

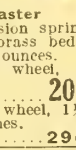


Ball Bearing Furniture Caster
 84 E 4381 — Wood wheel, Grip-
 neck sockets, 3/4 x 1 1/4 inches long.
 Shipping weight, 13 1/2 to 22 ounces.
 Diameter wheel, 1 inch. 22c
 Set of 4.
 Diameter wheel, 1 1/4 inches. 26c
 Set of 4.
 Diameter wheel, 1 1/2 inches. 33c



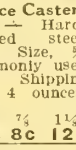
Ball Bearing Bed Caster

Wood wheels. Expansion spring
 sockets. Fit iron and brass beds.
 Shipping weight, 12 to 27 ounces.
 84 E 4389 — Diameter wheel, 1
 inch, for opening 3/4 inch. 20c
 Set of 4.
 84 E 4390 — Diameter wheel, 1 1/4
 inches, for opening 3/4 inches. 29c



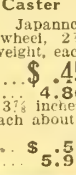
Domes of Silence Casters

84 E 4402 — Hard-
 ened, polished steel,
 nickel-plated. Size, 3/4
 inches is commonly used
 for chairs. Shipping
 weight, 2 to 4 ounces.
 (Give size.) 8c 8c 8c 8c 12c
 Diameter, inches. 1 1/4 1 1/2 1 3/4 1 1/2 1 3/4
 Set of 4.



Swivel Truck Caster

84 E 4412 — Japanned
 iron. Diameter wheel, 2 1/4
 inches. Shipping weight, each
 1 1/2 pounds. \$.45
 Dozen. 4.80
 Diameter wheel, 3 1/4 inches.
 Shipping weight, each about 3
 pounds. \$.55
 Dozen. 5.95



Rigid Truck Caster

84 E 4410 — Japanned
 iron, made strong and dur-
 able. Diameter wheel, 2 1/4
 inches. Shipping weight, 1 1/2
 pounds. Each. 34c
 Dozen. \$3.95
 Diameter wheel, 4 inches. Ship. weight,
 each, 2 1/4 pounds. Each. \$.49
 Dozen. 5.75



Colored Upholstering Nails

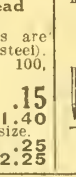
Heads durably enameled. Broad under
 edge prevents cutting the glimp. Shipping
 weight, per 100, 6 ounces.
 (Give color.)

| Article Number | Color | Per 100 |
|----------------|--------|---------|
| 84 E 4530 | Black | 8c |
| 84 E 4541 | Tan | 8c |
| 84 E 4542 | Green | 8c |
| 84 E 4543 | Maroon | 8c |



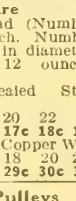
Genuine Brass Head Tacks

Gilt finish. Heads are
 brass (not plated steel).
 Shipping weight, per 100,
 4 ounces.
 84 E 4532 — Small
 size. Per 100. \$.15
 Per 1,000. 1.40
 84 E 4534 — Large size.
 Per 100. \$.25
 Per 1,000. 2.25



Spool Wire

Spools, half pound (Number
 16 gauge is 3/16 inch. Number
 22 gauge is 1/8 inch. in diameter.
 Shipping weight, 12 ounces.
 (Give size.)
 84 E 4570 — Annealed Steel
 Wire. Gauge. 16 18 20 22 24
 Spool. 15c 16c 17c 18c 19c
 84 E 4572 — Soft Copper Wire
 Gauge. 16 18 20 22 24
 Spool. 28c 29c 30c 35c



Screw Pulleys

84 E 4430 — Screw
 pulley, japanned iron.
 Shipping weight, 3 to 10
 ounces. (Give size.)
 Wheel, 1 1/4 inches. 5c 9c 11c 15c



Weather Strips



Easy to Put on

Save Fuel



Cushion Felt Weather Strips

84 E 4754 — All felt; securely stitched.
 For doors and windows. Excludes cold,
 wind, snow and dust. Simple to apply.
 Shipping weight, 50 feet, 12 to 18 ounces.
 Width, inches. 1 1/2 2 1/2 3 1/2 4 1/2 5 1/2 6 1/2 7 1/2 8 1/2 9 1/2 10 1/2 11 1/2 12 1/2 13 1/2 14 1/2 15 1/2 16 1/2 17 1/2 18 1/2 19 1/2 20 1/2 21 1/2 22 1/2 23 1/2 24 1/2 25 1/2 26 1/2 27 1/2 28 1/2 29 1/2 30 1/2 31 1/2 32 1/2 33 1/2 34 1/2 35 1/2 36 1/2 37 1/2 38 1/2 39 1/2 40 1/2 41 1/2 42 1/2 43 1/2 44 1/2 45 1/2 46 1/2 47 1/2 48 1/2 49 1/2 50 1/2
 50-foot roll. \$.69 \$.83 \$.98
 1.35 1.58 1.85

Felt on Wood Weather Strip
 184 E 4755 — Width, 3/4 inches for win-
 dows. Shipping weight, 5 pounds. Per bundle \$2.48
 184 E 4756 — Width, 1 1/4 inches for doors. Ship-
 ping weight, 5 pounds. Per bundle \$4.95
 Stained wood molding with thick felt. Put up in
 bundle of 14 pieces, 7 feet lengths, total 98 feet with
 nails. We cannot break bundles. Easy to apply, saves
 fuel and prevents draughts.

Rubber Weather Strips

84 E 4750 — Ship-
 ping weight, 50 feet, 1
 to 2 pounds.
 Width Roll 50 Feet Roll 25 Feet
 3/4 inches \$.98 \$.49
 1 1/4 inches 1.35 .70
 1 3/4 inches 1.58 .90
 2 inches 2.16 1.10

Rubber Weather Strip, Zinc Back
 84 E 4758 — In rolls 100
 feet long. Shipping weight,
 4 1/2 to 5 pounds. \$2.48
 Width, 1/2-inch. Full roll. 3.15
 Width, 3/4-inch. Full roll.

STEEL WOOD SCREWS



| Length, in. and size No. | 1/4-1 | 1/4-2 | 1/4-3 | 1/4-4 | 1/4-5 | 1/4-6 | 1/4-8 | 1/4-10 | 1/4-12 | 1/4-14 | 1/4-16 | 1/4-18 | 1/4-20 | 1/4-22 | 1/4-24 | 1/4-26 | 1/4-28 | 1/4-30 |
|--------------------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 84E4460 — Pkg., 3 dozen | 18 | 19 | 19 | 20 | 21 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 84E4462 — Per gross | 18 | 19 | 19 | 20 | 21 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| Length, in. and size No. | 1/4-8 | 1/4-9 | 1/4-10 | 1/4-11 | 1/4-12 | 1/4-13 | 1/4-14 | 1/4-15 | 1/4-16 | 1/4-17 | 1/4-18 | 1/4-19 | 1/4-20 | 1/4-21 | 1/4-22 | 1/4-23 | 1/4-24 | 1/4-25 |
| 84E4460 — Pkg., 3 dozen | 25 | 25 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 84E4462 — Per gross | 25 | 25 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Length, in. and size No. | 1-10 | 1-12 | 1-14 | 1-16 | 1-18 | 1-20 | 1-22 | 1-24 | 1-26 | 1-28 | 1-30 | 1-32 | 1-34 | 1-36 | 1-38 | 1-40 | 1-42 | 1-44 |
| 84E4460 — Pkg., 3 dozen | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 84E4462 — Per gross | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Length, in. and size No. | 1-10 | 1-12 | 1-14 | 1-16 | 1-18 | 1-20 | 1-22 | 1-24 | 1-26 | 1-28 | 1-30 | 1-32 | 1-34 | 1-36 | 1-38 | 1-40 | 1-42 | 1-44 |
| 84E4460 — Pkg., 1 dozen | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 84E4462 — Per gross | 40 | 44 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |

Round Head Blued Screws

| Lgth, in. and Size No. | 1/4-3 | 1/4-4 | 1/4-5 | 1/4-6 | 1/4-8 | 1/4-10 | 1/4-12 | 1/4-14 | 1/4-16 | 1/4-18 | 1/4-20 | 1/4-22 | 1/4-24 | 1/4-26 | 1/4-28 | 1/4-30 |
|------------------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 84E4480 — Per 3 dozen | 19 | 21 | 22 | 22 | 23 | 25 | 25 | 26 | 28 | 28 | 29 | 29 | 29 | 29 | 29 | 29 |
| 84E4480 — Per gross | 19 | 21 | 22 | 22 | 23 | 25 | 25 | 26 | 28 | 28 | 29 | 29 | 29 | 29 | 29 | 29 |
| Lgth, in. and Size No. | 1-10 | 1-12 | 1-14 | 1-16 | 1-18 | 1-20 | 1-22 | 1-24 | 1-26 | 1-28 | 1-30 | 1-32 | 1-34 | 1-36 | 1-38 | 1-40 |
| 84E4480 — Per 3 dozen | 14 | 10 | 10 | 14 | 14 | 14 | 14 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 84E4480 — Per gross | 30 | 32 | 33 | 34 | 38 | 39 | 39 | 47 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |

Flat Head Brass Screws

| Lgth, in. and Size No. | 1/4-2 | 1/4-3 | 1/4-4 | 1/4-5 | 1/4-6 | 1/4-8 | 1/4-10 | 1/4-12 | 1/4-14 | 1/4-16 | 1/4-18 | 1/4-20 | 1/4-22 | 1/4-24 | 1/4-26 | 1/4-28 | 1/4-30 |
|------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 84E4482 — Per 3 dozen | 32 | 34 | 34 | 36 | 38 | 42 | 46 | 49 | 55 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| 84E4482 — Per gross | 32 | 34 | 34 | 36 | 38 | 42 | 46 | 49 | 55 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Lgth, in. and Size No. | 1-8 | 1-10 | 1-12 | 1-14 | 1-16 | 1-18 | 1-20 | 1-22 | 1-24 | 1-26 | 1-28 | 1-30 | 1-32 | 1-34 | 1-36 | 1-38 | 1-40 |
| 84E4482 — Per 3 dozen | 11 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 84E4482 — Per gross | 1.08 | 1.02 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 | 1.23 |

Common WIRE NAILS



We always sell nails and screws at the lowest prevailing prices. If the market declines we will give you the benefit of the reduction and will refund the difference.

| Length, in. and Size No. | 2d-1 | 3d-1 1/2 | 4d-1 1/2 | 5d-1 1/2 | 6d-2 | 7d-2 1/2 | 8d-2 1/2 | 10d-3 | 12d-3 1/2 | 16d-3 1/2 |
|---------------------------------------|-------|-----------|-----------|-----------|-------|-----------|-----------|-----------|------------|------------|
| 84E8200 — Wire Fencing Nails, Per lb. | 5.35 | 5.05 | 4.70 | 4.65 | 4.50 | 4.45 | 4.20 | 4.20 | 4.10 | 4.00 |
| 84E8200 — Per 100 lbs. | 5.35 | 5.05 | 4.70 | 4.65 | 4.50 | 4.45 | 4.20 | 4.20 | 4.10 | 4.00 |
| Length, in. and Size No. | 20d-4 | 30d-4 1/2 | 40d-4 1/2 | 50d-5 1/2 | 60d-6 | 70d-6 1/2 | 80d-6 1/2 | 90d-6 1/2 | 100d-6 1/2 | 120d-6 1/2 |
| 84E8200 — Per 100 lbs. | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 |
| 84E8200 — Per 100 lbs. | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 |

SPECIAL WIRE NAILS

| Length, in. and Size No. | 2d-1 | 3d-1 1/2 | 4d-1 1/2 | 5d-1 1/2 | 6d-2 | 7d-2 1/2 | 8d-2 1/2 | 10d-3 | 12d-3 1/2 | 16d-3 1/2 |
|---------------------------------------|-------|-----------|-----------|-----------|-------|-----------|-----------|-----------|------------|------------|
| 84E8201 — Wire Fencing Nails, Per lb. | 5.35 | 5.05 | 4.70 | 4.65 | 4.50 | 4.45 | 4.20 | 4.20 | 4.10 | 4.00 |
| 84E8201 — Per 100 lbs. | 5.35 | 5.05 | 4.70 | 4.65 | 4.50 | 4.45 | 4.20 | 4.20 | 4.10 | 4.00 |
| Length, in. and Size No. | 20d-4 | 30d-4 1/2 | 40d-4 1/2 | 50d-5 1/2 | 60d-6 | 70d-6 1/2 | 80d-6 1/2 | 90d-6 1/2 | 100d-6 1/2 | 120d-6 1/2 |
| 84E8200 — Per 100 lbs. | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 |
| 84E8200 — Per 100 lbs. | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 |

Bolts of Every Description

Listed on Page 805

Galvanized Wire Shingle Nails

| Size | Lth. in. | 184E8212 | 84E8212 |
|------|----------|----------|---------|
| 3d | 1 1/4 | \$6.30 | 7c |
| 4d | 1 1/2 | 6.10 | 7c |

Wire Brads

| Length | No. | Pound |
|------------|-----|-------|
| 1/2 inch | 20 | 29 c |
| 3/4 inch | 18 | 21 c |
| 1 inch | 17 | 16 c |
| 1 1/4 inch | 16 | 13 c |
| 1 1/2 inch | 15 | 13 c |
| 1 3/4 inch | 14 | 12 c |

Wire Nails

| Length | No. | Pound |
|------------|-----|-------|
| 1/2 inch | 19 | 29 c |
| 3/4 inch | 18 | 21 c |
| 1 inch | 17 | 16 c |
| 1 1/4 inch | 16 | 13 c |
| 1 1/2 inch | 15 | 13 c |
| 1 3/4 inch | 14 | 12 c |

Clout Nails

| Length | Pound |
|------------|----------|
| 1/2 inch | 25 c |
| 3/4 inch | 24 c |
| 1 inch | 22 c |
| 1 1/4 inch | 20 c |
| 1 1/2 inch | 19 1/2 c |
| 1 3/4 inch | 19 c |

Handy Boxes of Carpet Tacks

84 E 4516 — Packages of about 500
 tacks. Sizes, 6, 8 or 10 ounces. Lengths
 about 1/2, 3/4, 1 inch. Shipping weight,
 packages, 3 ounces. (Give size.) 5c
 Dozen packages. 59c

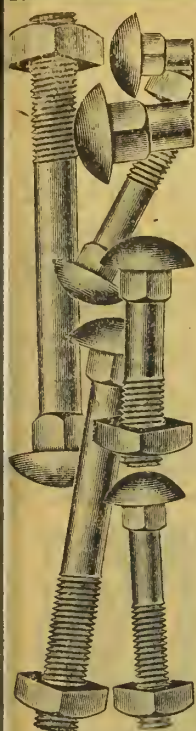


Awning Pulleys

Galvanized iron For rope up to 1/2
 inch. Shipping weight, each, 4, 6, 8 ounces.
 84 E 4433 — Double, shipping weight,
 each 6, 8, 12 ounces.
 Wheel, inches. 3/4 1 1 1/4
 10c 14c 18c

84 E 4432 — Single wheel.
 Wheel,

Do Your Own Repairing—It's Worth While



Carriage Bolts

Made of the best grade of special bolt steel, with clean, accurate round threads and well formed head and nuts. (Give size.)

84 E 4800—Diameter, $\frac{1}{2}$ inch. Ship. wts., 2 to 14 pounds per 100.

| L'gth In. | 100 Bolts | 10 Bolts | L'gth In. | 100 Bolts | 10 Bolts |
|-----------------|-----------|----------|-----------------|-----------|----------|
| 1 $\frac{1}{2}$ | 47c | 5c | 3 | .62 | 7c |
| 1 $\frac{3}{4}$ | 59c | 6c | 3 $\frac{1}{2}$ | .66 | 7c |
| 2 | 71c | 6c | 4 | .70 | 8c |
| 2 $\frac{1}{4}$ | 83c | 6c | 4 $\frac{1}{2}$ | .70 | 8c |
| 2 $\frac{1}{2}$ | 95c | 6c | 5 | .80 | 9c |
| 3 | 1.07 | 7c | 6 | .89 | 10c |
| 3 $\frac{1}{2}$ | 1.19 | 7c | 7 | 1.20 | 13c |

84 E 4801—Diameter, $\frac{5}{16}$ in. Ship. wts., 3 to 20 lbs. per 100. We sell packages of 50 at the 100 rate.

| L'gth In. | 100 Bolts | 10 Bolts | L'gth In. | 100 Bolts | 10 Bolts |
|-----------------|-----------|----------|-----------------|-----------|----------|
| 1 $\frac{1}{2}$ | 66c | 7c | 3 $\frac{1}{2}$ | .90 | 11c |
| 1 $\frac{3}{4}$ | 71c | 8c | 4 | .96 | 11c |
| 2 | 72c | 8c | 4 $\frac{1}{2}$ | .99 | 12c |
| 2 $\frac{1}{4}$ | 77c | 8c | 5 | 1.05 | 12c |
| 2 $\frac{1}{2}$ | 78c | 9c | 5 $\frac{1}{2}$ | 1.12 | 13c |
| 3 | 84c | 9c | 6 | 1.19 | 13c |
| 3 $\frac{1}{2}$ | 89c | 10c | 7 | 1.20 | 23c |

Stove Bolts



Round Head Stove Bolts

Ship. wts., per 100 1 $\frac{1}{2}$ to 5 pounds.

| L'gth In. | 100 Bolts | Dozen Bolts | L'gth In. | 100 Bolts | Dozen Bolts |
|-----------------|-----------|-------------|-----------------|-----------|-------------|
| 1 $\frac{1}{2}$ | 22c | 4c | 3 $\frac{1}{2}$ | 30c | 6c |
| 1 $\frac{3}{4}$ | 24c | 4c | 4 | 32c | 6c |
| 2 | 26c | 4c | 4 $\frac{1}{2}$ | 34c | 7c |
| 2 $\frac{1}{4}$ | 28c | 5c | 5 | 36c | 7c |
| 2 $\frac{1}{2}$ | 30c | 5c | 5 $\frac{1}{2}$ | 38c | 7c |
| 3 | 32c | 6c | 6 | 40c | 8c |
| 3 $\frac{1}{2}$ | 34c | 7c | 6 $\frac{1}{2}$ | 42c | 8c |
| 4 | 36c | 7c | 7 | 44c | 8c |
| 4 $\frac{1}{2}$ | 38c | 7c | 7 $\frac{1}{2}$ | 46c | 8c |
| 5 | 40c | 7c | 8 | 48c | 9c |

Flat Head Stove Bolts

Ship. wt., per 100, 1 to 5 lbs.

| L'gth In. | 100 Bolts | Dozen Bolts | L'gth In. | 100 Bolts | Dozen Bolts |
|-----------------|-----------|-------------|-----------------|-----------|-------------|
| 1 $\frac{1}{2}$ | 22c | 4c | 3 $\frac{1}{2}$ | 30c | 6c |
| 1 $\frac{3}{4}$ | 24c | 4c | 4 | 32c | 6c |
| 2 | 26c | 4c | 4 $\frac{1}{2}$ | 34c | 7c |
| 2 $\frac{1}{4}$ | 28c | 5c | 5 | 36c | 7c |
| 2 $\frac{1}{2}$ | 30c | 5c | 5 $\frac{1}{2}$ | 38c | 7c |
| 3 | 32c | 6c | 6 | 40c | 8c |
| 3 $\frac{1}{2}$ | 34c | 7c | 6 $\frac{1}{2}$ | 42c | 8c |
| 4 | 36c | 7c | 7 | 44c | 8c |
| 4 $\frac{1}{2}$ | 38c | 7c | 7 $\frac{1}{2}$ | 46c | 8c |
| 5 | 40c | 7c | 8 | 48c | 9c |

Assorted Steel Stove Bolts

84 E 4820—Flat Heads—10 each. 3 $\frac{1}{2}$ x $\frac{1}{2}$ and 1 in.; 10 each, 3 $\frac{1}{2}$ x $\frac{3}{4}$, 1 $\frac{1}{2}$ x $\frac{1}{2}$ in. Round Heads—10 each, 3 $\frac{1}{2}$ x $\frac{1}{2}$ and 1 in.; 10 each, 3 $\frac{1}{2}$ x $\frac{3}{4}$ and 1 in. Total of 100 bolts. Clean threads. Ship. wt., 1 lb. **35c**

Lag Screws

Square heads. Gimlet points.

| L'gth In. | 100 Bolts | Dozen Bolts | L'gth In. | 100 Bolts | Dozen Bolts |
|-----------------|-----------|-------------|-----------------|-----------|-------------|
| 1 $\frac{1}{2}$ | 22c | 4c | 3 $\frac{1}{2}$ | 30c | 6c |
| 1 $\frac{3}{4}$ | 24c | 4c | 4 | 32c | 6c |
| 2 | 26c | 4c | 4 $\frac{1}{2}$ | 34c | 7c |
| 2 $\frac{1}{4}$ | 28c | 5c | 5 | 36c | 7c |
| 2 $\frac{1}{2}$ | 30c | 5c | 5 $\frac{1}{2}$ | 38c | 7c |
| 3 | 32c | 6c | 6 | 40c | 8c |
| 3 $\frac{1}{2}$ | 34c | 7c | 6 $\frac{1}{2}$ | 42c | 8c |
| 4 | 36c | 7c | 7 | 44c | 8c |
| 4 $\frac{1}{2}$ | 38c | 7c | 7 $\frac{1}{2}$ | 46c | 8c |
| 5 | 40c | 7c | 8 | 48c | 9c |

Assorted Set Screws

84 E 4830—Assortment 50 cap point set screws. Diameters, $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, 1 in. Lengths, $\frac{1}{2}$ to 1 $\frac{1}{2}$ in. Ship. wt., 2 lbs. Package of 50 **89c**

Assorted Cap Screws

84 E 4831—Assortment 50 cap screws. Hexagon head. Diameters, $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, 1 in. Lengths, $\frac{1}{2}$ to 1 $\frac{1}{2}$ in. Ship. wt., 3 $\frac{1}{2}$ lbs. Package of 50 **\$1.35**

Fluted Iron Tire Bolts

Grooves prevent the bolt from turning in the wood when the nut is being put on. Ship.

| L'gth In. | 100 Bolts | Dozen Bolts | L'gth In. | 100 Bolts | Dozen Bolts |
|-----------------|-----------|-------------|-----------------|-----------|-------------|
| 1 $\frac{1}{2}$ | 22c | 4c | 3 $\frac{1}{2}$ | 30c | 6c |
| 1 $\frac{3}{4}$ | 24c | 4c | 4 | 32c | 6c |
| 2 | 26c | 4c | 4 $\frac{1}{2}$ | 34c | 7c |
| 2 $\frac{1}{4}$ | 28c | 5c | 5 | 36c | 7c |
| 2 $\frac{1}{2}$ | 30c | 5c | 5 $\frac{1}{2}$ | 38c | 7c |
| 3 | 32c | 6c | 6 | 40c | 8c |
| 3 $\frac{1}{2}$ | 34c | 7c | 6 $\frac{1}{2}$ | 42c | 8c |
| 4 | 36c | 7c | 7 | 44c | 8c |
| 4 $\frac{1}{2}$ | 38c | 7c | 7 $\frac{1}{2}$ | 46c | 8c |
| 5 | 40c | 7c | 8 | 48c | 9c |

79c

100 Assorted Bolts

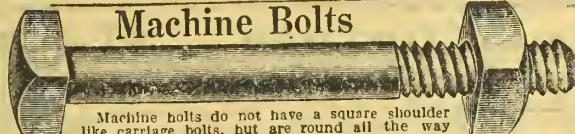


ASSORTED CARRIAGE BOLTS WITH NUTS



Threaded nuts fit carriage and machine bolts. Blank without threads. (Prices subject to market changes.) Ship. wt., 18 oz.

Machine Bolts



Machine bolts do not have a square shoulder like carriage bolts, but are round all the way up to the head.

Made with clean threads, perfectly formed square heads and nuts.

84 E 4806—Diameter $\frac{1}{4}$ inch. Ship. wts., 4 to 14 lbs. per 100. We sell packages of 50 at the 100 rate.

| L'gth In. | 100 Bolts | 10 Bolts | L'gth In. | 100 Bolts | 10 Bolts |
|-----------------|-----------|----------|-----------------|-----------|----------|
| 1 $\frac{1}{2}$ | 71c | 8c | 3 $\frac{1}{2}$ | .87 | 9c |
| 2 | 75c | 8c | 4 | .87 | 10c |
| 2 $\frac{1}{4}$ | 79c | 9c | 4 $\frac{1}{2}$ | 1.18 | 13c |
| 2 $\frac{1}{2}$ | 81c | 9c | 5 | 1.24 | 14c |
| 3 | 83c | 9c | | | |

84 E 4808—Diameter, $\frac{1}{2}$ inch. Ship. wts., 7 to 32 lbs. per 100. We sell packages of 50 at the 100 rate.

| L'gth In. | 100 Bolts | 10 Bolts | L'gth In. | 100 Bolts | 10 Bolts |
|-----------------|-----------|----------|-----------------|-----------|----------|
| 1 $\frac{1}{2}$ | .99 | 1c | 4 $\frac{1}{2}$ | 1.74 | 20c |
| 2 | 1.08 | 1c | 5 | 1.80 | 20c |
| 2 $\frac{1}{4}$ | 1.12 | 1c | 5 $\frac{1}{2}$ | 1.88 | 22c |
| 2 $\frac{1}{2}$ | 1.15 | 1c | 6 | 1.98 | 22c |
| 3 | 1.20 | 1c | 7 | 2.15 | 24c |
| 3 $\frac{1}{2}$ | 1.26 | 1c | 8 | 2.30 | 25c |
| 4 | 1.33 | 1c | | | |

Assorted Machine Bolts

48c

84 E 4826—Fifty Bolts. Ten sizes. Diam., $\frac{1}{4}$, $\frac{5}{8}$ and $\frac{3}{8}$ in. Lengths, 2 to 5 in. Ship. wt., 5 lbs. Package of 50 **48c**

Wrought Iron Washers

84 E 4844—Wrought iron washers to fit all ordinary bolts. Give size when ordering. See also assorted package on this page.

| For Bolt Size, In. | Av. Washers in Pound | Pkg. One Pound | For Bolt Size, In. | Av. Washers in Pound | Pkg. One Pound |
|--------------------|----------------------|----------------|--------------------|----------------------|-------------------|
| $\frac{1}{16}$ | 350 | 12c | $\frac{3}{8}$ | 12 | 6 $\frac{1}{2}$ c |
| $\frac{1}{8}$ | 180 | 10c | $\frac{1}{2}$ | 6 | 5 $\frac{1}{2}$ c |
| $\frac{3}{16}$ | 100 | 9c | | | |
| $\frac{1}{4}$ | 60 | 8c | | | |
| $\frac{5}{16}$ | 24 | 7c | | | |

Hook and Eye Turn Buckles



84 E 4834—Wrought steel. galvanized to prevent rust. Ship. wts., 1 to 5 $\frac{1}{2}$ lbs. Opens 3 to 4 $\frac{1}{2}$ in. Give size.

| Diam. Threads | Length Closed | Each |
|-------------------|----------------------|------|
| $\frac{1}{2}$ in. | 8 $\frac{1}{2}$ in. | .45 |
| $\frac{5}{8}$ in. | 9 $\frac{1}{2}$ in. | .52 |
| $\frac{3}{4}$ in. | 10 $\frac{1}{2}$ in. | .62 |
| $\frac{7}{8}$ in. | 13 $\frac{1}{2}$ in. | .87 |
| $\frac{1}{2}$ in. | 18 $\frac{1}{2}$ in. | 1.25 |
| $\frac{3}{4}$ in. | 20 $\frac{1}{2}$ in. | 1.65 |

Heavy Turn Buckle

84 E 4832—Wrought steel. With short right and left hand threaded stub ends. Opens 4 to 6 in. Give size.

| Diameter Rod | Length, Closed, In. | Ship. Weight Lbs. | Each |
|---------------|---------------------|-------------------|------|
| $\frac{1}{2}$ | 16 $\frac{1}{2}$ | 1 | 39c |
| $\frac{5}{8}$ | 17 | 1 $\frac{1}{2}$ | 47c |
| $\frac{3}{4}$ | 17 $\frac{1}{2}$ | 2 | 52c |
| $\frac{7}{8}$ | 17 $\frac{1}{2}$ | 3 | 68c |
| 1 | 18 $\frac{1}{2}$ | 4 $\frac{1}{2}$ | 92c |



84 E 7040—Bolt Clippers: solid, tempered steel jaws. Adjustable to take up wear. Rubber bumpers between the handles to avoid jar on the hands and wrists. Size 12 inch is not adjustable.

| Length, Inches | 12 | 18 | 24 | 30 | 36 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Will Cut, Inches | $\frac{1}{2}$ | $\frac{5}{8}$ | $\frac{3}{4}$ | $\frac{7}{8}$ | 1 |
| Shipping weight, pounds | $\frac{1}{2}$ | $\frac{3}{4}$ | $\frac{5}{8}$ | $\frac{1}{2}$ | $\frac{3}{4}$ |
| Each | \$1.25 | \$2.80 | \$3.75 | \$5.25 | \$6.75 |

Carriage Bolts

84 E 4802—Diameter, $\frac{3}{8}$ inch. Ship. wts., 9 to 42 lbs. per 100. We sell packages of 50 at the 100 rate.

| L'gth In. | 100 Bolts | 10 Bolts | L'gth In. | 100 Bolts | 10 Bolts |
|-----------------|-----------|----------|-----------------|-----------|----------|
| 1 $\frac{1}{2}$ | .89 | 10c | 4 $\frac{1}{2}$ | 1.37 | 15c |
| 1 $\frac{3}{4}$ | .95 | 11c | 5 | 1.39 | 16c |
| 2 | .98 | 11c | 5 $\frac{1}{2}$ | 1.41 | 16c |
| 2 $\frac{1}{4}$ | 1.04 | 12c | 6 | 1.52 | 17c |
| 2 $\frac{1}{2}$ | 1.05 | 12c | 6 $\frac{1}{2}$ | 1.62 | 18c |
| 3 | 1.12 | 12c | 7 | 1.99 | 22c |
| 3 $\frac{1}{2}$ | 1.14 | 13c | 7 $\frac{1}{2}$ | 2.09 | 23c |
| 4 | 1.20 | 13c | 8 | 2.18 | 24c |
| 4 $\frac{1}{2}$ | 1.22 | 14c | 8 $\frac{1}{2}$ | 2.28 | 25c |
| 5 | 1.27 | 14c | 9 | 2.64 | 29c |
| 5 $\frac{1}{2}$ | 1.29 | 14c | 10 | 3.04 | 34c |

84 E 4803—Diameter, $\frac{1}{2}$ inch. Ship. wts., 15 to 100 lbs. per 100. We sell packages of 50 at the 100 rate.

| L'gth In. | 100 Bolts | 10 Bolts | L'gth In. | 100 Bolts | 10 Bolts |
|-----------------|-----------|----------|-----------------|-----------|----------|
| 2 $\frac{1}{2}$ | 1.82 | 20c | 6 $\frac{1}{2}$ | 3.14 | 35c |
| 3 | 1.83 | 20c | 7 | 3.30 | 37c |
| 3 $\frac{1}{2}$ | 1.85 | 21c | 7 $\frac{1}{2}$ | 3.50 | 40c |
| 4 | 1.99 | 22c | 8 | 3.62 | 40c |
| 4 $\frac{1}{2}$ | 2.17 | 24c | 9 | 3.93 | 44c |
| 5 | 2.33 | 26c | 10 | 4.28 | 47c |
| 5 $\frac{1}{2}$ | 2.50 | 28c | 12 | 4.85 | 54c |
| 6 | 2.65 | 29c | 14 | 5.53 | 62c |
| 6 $\frac{1}{2}$ | 2.85 | 32c | 16 | 6.16 | 68c |
| 7 | 2.96 | 33c | | | |



Copper Rivets and Burrs

Ship. wt., per lb., 18 oz. Illustrations actual size. Pure soft copper, with burrs to fit. (Prices are subject to market changes.) Size means diameter of rivet.

| | | |
|---|--|-----|
| Mans. number of vel. | | |
| 84 E 4872—Size 8. Lengths, $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{1}{2}$ in. | (Give size.) Pound. | 32c |
| 84 E 4883—Assorted, $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | Found. | 34c |
| Per $\frac{1}{4}$ lb. | | 18c |
| 84 E 4873—Size 9. Lengths, $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{1}{2}$ in. | $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | 33c |
| Per lb. | | 35c |
| 84 E 4884—Assorted, $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | Found. | 35c |
| Per $\frac{1}{4}$ lb. | | 18c |
| 84 E 4876—Size 10. Lengths, $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{1}{2}$ in. | $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | 34c |
| (Give size.) Pound. | | 36c |
| 84 E 4885—Assorted, $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | Found. | 36c |
| Per $\frac{1}{4}$ lb. | | 19c |
| 84 E 4879—Size 12. Lengths, $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{1}{2}$ in. | $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | 36c |
| (Give size.) Pound. | | 36c |
| 84 E 4880—Assorted, $\frac{3}{8}$ in. to $\frac{3}{4}$ in. | Found. | 38c |
| Per $\frac{1}{4}$ lb. | | 20c |

| 84 E 4852—Style Rivet. | 84 E 4853—Round Head | 84 E 4856—Wagon Box Head | 84 E 4857—Wagon Box Head |
|------------------------|---------------------------------|---------------------------------|---------------------------------|
| Diameter, In. | $\frac{1}{16}$ to $\frac{1}{2}$ | $\frac{1}{16}$ to $\frac{1}{2}$ | $\frac{1}{16}$ to $\frac{1}{2}$ |
| Lengths, In. | $\frac{1}{2}$ to $2\frac{1}{2}$ | $\frac{1}{2}$ to $2\frac{1}{2}$ | $\frac{1}{2}$ to $2\frac{1}{2}$ |
| Package, 1 lb. | 8c | 7c | 8c |

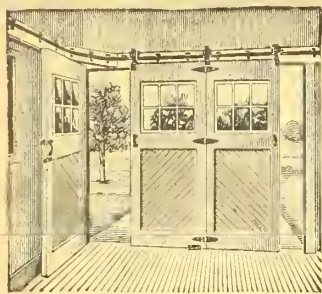
| Number | 84 E 4852 | 84 E 4853 | 84 E 4856 | 84 E 4857 |
|----------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Style Rivet. | Round Head | Round Head | Wagon Box Head | Wagon Box Head |
| Diameter, In. | $\frac{1}{16}$ to $\frac{1}{2}$ | $\frac{1}{16}$ to $\frac{1}{2}$ | $\frac{1}{16}$ to $\frac{1}{2}$ | $\frac{1}{16}$ to $\frac{1}{2}$ |
| Lengths, In. | $\frac{1}{2}$ to $2\frac{1}{2}$ | $\frac{1}{2}$ to $2\frac{1}{2}$ | $\frac{1}{2}$ to $2\frac{1}{2}$ | $\frac{1}{2}$ to $2\frac{1}{2}$ |
| Package, 1 lb. | 8c | 7c | 8c | 7c |

| For Rivet | Outside Diam. | No. in Lb. | Per Lb. |
|--------------------|--------------------|------------|---------|
| $\frac{1}{16}$ in. | $\frac{1}{16}$ in. | 362 | 25c |
| $\frac{1}{8}$ in. | $\frac{1}{8}$ in. | 210 | 19c |

| 84 E 4860—Small size, No. 9. | 84 E 4861—Large size, No. 6. |
|---|---|
| Assorted Slotted Rivets | Assorted Slotted Rivets |
| in. Assorted. Ship. wt., 12c per box, 4 oz. Box of 100. | in. Assorted. Ship. wt., 12c per box, 8 oz. Box of 100. |
| 84 E 4861—Large size, No. 6. | 84 E 4861—Large size, No. 6. |
| in. Assorted. Ship. wt., 12c per box, 8 oz. | in. Assorted. Ship. wt., 12c per box, 8 oz. |
| Box of 100. | Box of 100. |
| 22c | 22c |

| 84 E 4886—Assorted, |
|---------------------|
|---------------------|

Serviceable Equipment for the Garage and Barn



Garage Door Hanger

Three-Door Combination Sliding Door Set

184 E 3931—With 3 roller bearing hangers, 1½ pair 6-inch extra-heavy T hinges, 2 extra heavy door pulls, 1 thumb latch 8 inches long, 1 safety hasp, 7½ inches long with bolts for fastening to door. One set floor guides with long screws and expansion shield. One combination door stop and holder. Three sections heavy track 5 feet 9 inches long, with screws. Entire set heavily japanned. Shipping weight, 21 pounds.

\$7.43

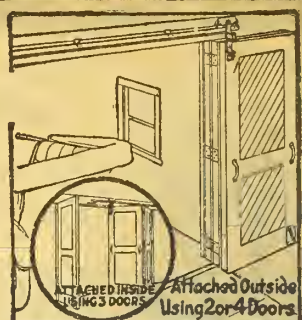


Trolley Barn Door Hanger

84 E 3919—Latest and best hanger. Heavy wrought steel. Has hinged joint so door will not bind when swung out. Detachable door strap makes hanging easy. Lateral adjustment to fit doors 1½ to 2½ inches thick. Easy running Roller Bearing Wheels. A pair consists of two hangers, two end brackets and one center bracket with bolts and screws. Shipping weight, pair, 10 pounds. **\$1.88**

184 E 3922—For 8-foot doors with 16 foot track, screws, bolts, brackets, etc. Shipping weight, about 33 pounds. Complete outfit **\$6.30**

184 E 3924—For 10-foot doors with 20 foot track, screws, bolts, brackets, etc. Shipping weight about 40 pounds. Complete outfit **\$7.35**



Garage Door Hanger

484 E 3923—Works inside or outside right or left. Closes doors tightly. Regular set for two 4-foot doors comprises: 1 pivoted sliding hanger, with anti-sag adjustment 8-foot track, 3 pair 4x4 huts, 2 door handles, 1 improved foot bolt, 1 top guide and closer. All japanned steel. Bolts and screws included, except for track. Can be used with any number or size of doors. Shipping weight, with track, 30 pounds. Price, set complete for two 4-foot doors including steel track. **\$4.95**



Steel Trolley Barn Door Track

For 184 E 3919 Hanger

184 E 3920—Heavy wrought steel without brackets. Give size. Lgth., ft. 4 6 8 10 Ship. wt., lbs. 7 10 14 17

96c \$1.44 \$1.92 \$2.40

Steel Track Brackets for Above Track

84 E 3921—Heavy wrought steel for single track. Attach about 3 feet apart. Without screws. (Use ½-in. lag screws.) Ship. wt., ¼ lb. **13c**

84 E 3927—Double track brackets for above track. Without screws. Wt. 4 lbs. **56c**

(Note. Single brackets are used, except when two tracks are hung side by side in which case double brackets are used.)

Wrought T Hinges

Wrought Steel. Sizes below indicate length of the strap. Without screws. **84 E 3828**—Light Pattern.

| Size in. | Width, joint | Ship. wt., pair | Size screw | One pair |
|----------|--------------|-----------------|------------|----------|
| 3 | 2½ | 4 oz. | 7 | 8c |
| 4 | 2½ | 5 oz. | 7 | 11c |
| 5 | 2½ | 7 oz. | 7 | 13c |

84 E 3830—Extra Heavy.

| Size in. | Width, joint | Ship. wt., pair | Size screw | One pair |
|----------|--------------|-----------------|------------|----------|
| 6 | 4½ | 2 lbs. | 10 | 20c |
| 8 | 5½ | 3½ lbs. | 12 | 27c |
| 10 | 7 | 5 lbs. | 14 | 34c |
| 12 | 7½ | 7½ lbs. | 14 | 42c |

Corrugated Heavy T-Hinges

84 E 3832—Wrought Steel Corrugated T-Hinges. The corrugation about the joints greatly increase the strength and prevent binding on the pin. Sizes indicate length of the strap. Without screws. (Give size.)

| Size in. | Width, joint | Ship. wt., pair | Size screw | One pair |
|----------|--------------|-----------------|------------|----------|
| 4 | 3½ | 1½ lb. | 10 | 17c |
| 5 | 4 | 1 lb. | 10 | 19c |
| 6 | 4½ | 1½ lbs. | 10 | 24c |
| 8 | 5½ | 2 lbs. | 12 | 40c |
| 10 | 7 | 4 lbs. | 14 | 58c |

Wrought Strap Hinges

Wrought Steel. Sizes given are one-half the total length of hinge when open. Without screws. (Give Size.)

84 E 3820—Light Pattern.

| Size in. | Width, joint | Ship. wt., pair | Size screw | One pair |
|----------|--------------|-----------------|------------|----------|
| 3 | 1½ | 3 oz. | 6 | 7c |
| 4 | 1½ | 5 oz. | 7 | 10c |
| 5 | 1½ | 8 oz. | 8 | 12c |

84 E 3821—Heavy Pattern.

| Size in. | Width, joint | Ship. wt., pair | Size screw | One pair |
|----------|--------------|-----------------|------------|----------|
| 4 | 1½ | 10 oz. | 9 | 10c |
| 5 | 1½ | 15 oz. | 9 | 15c |
| 6 | 2½ | 1½ lb. | 10 | 19c |
| 8 | 2½ | 3 lb. | 12 | 32c |
| 10 | 3½ | 3½ lb. | 12 | 46c |

Heavy Corrugated Strap Hinges

84 E 3824—Wrought steel. Strong and stiff. Sizes given are one-half the total length of hinge when open. Without screws. (Give Size.)

| Size in. | Width, joint | Ship. wt., pair | Size screw | One pair |
|----------|--------------|-----------------|------------|----------|
| 4 | 1½ | 10 oz. | 8 | 11c |
| 5 | 1½ | 14 oz. | 8 | 16c |
| 6 | 2½ | 22 oz. | 10 | 24c |
| 8 | 3 | 36 oz. | 10 | 34c |
| 10 | 3½ | 56 oz. | 14 | 50c |

Hasps, Hooks and Staples

84 E 3860—Wrought steel. Shipping weight, each, 8 to 14 ounces. (Give size.)

Length, inches. 6 8 10 7c 9c 13c

Put Metal Roofing on Your Barn

95c
Without Track

Our Leader
Barn Door Hanger

The Door Won't Jump the Track

\$2.40
With Track

Heavy wrought steel with roller bearing wheels. Fits any size door or length of run. Hinge joint makes the hanger flexible, prevents door from bending and jumping track when swung in or out, as it has a guard running under the rail holding the hangers in position.

84 E 3900—Pair with necessary bolts (without Track). Order 184 E 3901 track. Shipping weight, 7 pounds. **95c**

484 E 3902—For 8-foot doors, complete set of hangers, 16 foot track and necessary bolts and screws. Shipping weight, about 25 pounds. Set. **\$2.85**

484 E 3903—For 10-foot doors, complete set of hangers, 20 foot track and necessary bolts and screws. Shipping weight, about 30 pounds. Set. **\$3.28**

484 E 3913—For 6-foot doors, complete set of hangers, 12 foot track, and necessary bolts and screws. Shipping weight, about 17 pounds. Set. **\$2.40**

Heavy Steel Barn Door Rail For Above

| | |
|---|---|
| 184 E 3901 —Made of round edge steel. Size 1½ inch by ¾ inch, steel brackets, countersunk for Number 12 screws. (Screws not included.) | Length, feet. 4 6 8 10 |
| | Shipping weight, pounds. 40c 60c 80c 100c |
| | One length. 40c 60c 80c \$1.00 |

Steel Barn Door Hanger

85c
Pair

Heavy wrought steel. Wheels roller bearing. Runs on track 184 E 3908.

84 E 3904—Medium size 1. Width 5 inches. Length, 10½ inches. Diameter of wheel, 3½ inches. Shipping weight, pair, 6 pounds. Without bolts or screws. **85c**

184 E 3911—For 8-foot doors, hangers, 16 foot track, necessary bolts and screws. Shipping weight, 25 pounds. Complete. **\$2.46**

84 E 3905—Large, size 2. Width 6 inches. Length, 12 inches. Diameter of wheel, 4 inches. Shipping weight, pair, 9 pounds. **98c**

184 E 3912—For 10-foot doors, hangers, 20 foot track, necessary bolts and screws. Shipping weight, about 29 pounds. Complete. **\$2.96**

\$1.23
PAIR

84 E 3906—Size, 9x10½ inches. Shipping weight, pair, 9 pounds. Without bolts or screws. **\$1.23**

184 E 3909—For 8-foot doors, hangers, 16 foot track and necessary bolts and screws. Shipping weight, about 29 pounds. Set. **\$2.88**

84 E 3907—Size, 1½x11 inches. Without bolts or screws. **\$1.58**

184 E 3910—For 10-foot doors, hangers, 20 foot track and all bolts and screws. Shipping weight, 35 pounds. Set. **\$3.65**

Steel Barn Door Rail For Above

| |
|--|
| Length, feet. 6 8 10 |
| Shipping weight, pounds. 5 6 8 |
| One length. 48c 64c 80c |

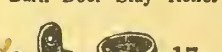
Hinge Hasps



84 E 3854—Wrought steel. Without screws. Ship. weight, each, 8 to 18 oz.

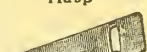
| Length Strap inches | Full Length inches | Each |
|---------------------|--------------------|------|
| 3 | 6 | 8c |
| 4½ | 7½ | 10c |
| 8 | 12½ | 20c |
| 10 | 15½ | 33c |

Barn Door Stay Roller



84 E 3930—Adjustable Hinge Joint Stay Roller. Will fit closely to the floor. Wrought steel, iron wheel. (Without screws.) Shipping weight, 14 oz. **17c**

Steel Safety Hasp



When locked the screw heads are concealed. Length of strap, 4½ inches. With screws. **84 E 3855**—Japanned. **25c**

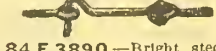
84 E 3857—Galvanized. **33c**

Brass Security Hasp



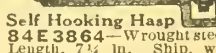
84 E 3858—Polished cast brass. Size, closed, 3½x1½ inches. Without screws. Ship. wt., 10 ounces. **43c**

Door Hooks and Eyes



84 E 3890—Bright steel. Ship. wt., per doz., 8 to 20 oz. Size in. 2 2½ 3 Dozen. 15c 19c 22c Size, in. 3½ 4 Dozen. 27c 33c

Self Hooking Hasp



84 E 3864—Wrought steel, Length, 7½ in. Ship. wt., each, 8 oz. **10c**

Doz. **78c**

Garage and Barn Door Latch

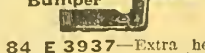


95c



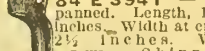
84 E 3933—Made of wrought steel which makes this set greatly superior to the old cast iron latches. The escutcheon blade over the thumb latch on the outside of the door covers the hole and gives the latch a finished appearance. Length handle, 10½ inches. Length of bar, 12 inches. Set complete as illustrated, heavily japanned. Shipping weight, 3½ pounds. **95c**

Heavy Door Pull

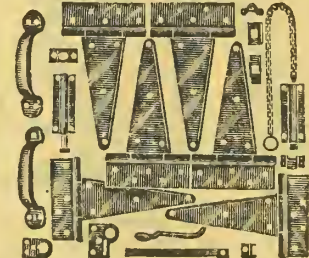


84 E 3941—Japanned. Length, 10½ inches. Width at ends, 2½ inches. With screws. Shipping weight, 12 ounces. **40c**

Barn Door Cast Pull



84 E 3940—Japanned. Firm hand hold. Length, 6 inches. Width, 1½ inches. Shipping weight, 2 ounces. (Without screws.) **6c**



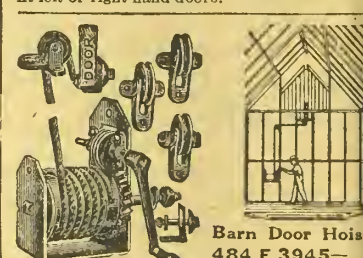
Garage Door Hanger Set

484 E 3925—Durable wrought steel, set consists of 3 pair, 10 inch reverse pad, extra heavy T hinges, one 6 inch chain bolt for top of door, one 6 inch foot bolt with floor plate. One thumb latch and one door handle. Specially suited to medium weight doors. Hinges are correctly proportioned to prevent sagging. Above all black japanned. Shipping weight, 18 pounds. Set. **\$4.15**

Sliding Door Latch

84 E 3875—Latch complete length, 10 inches. Shipping weight, about 2 pounds. **47c**

May be operated from inside or outside. Extra staple to fasten door when open. Will fit left or right hand doors.



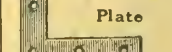
Barn Door Hoist

484 E 3945—For handling vertical sliding doors in hay lofts, etc. Strong 5-inch iron drum, self-locking, three pulleys, one clamp, for fastening cable to door. Japanned. Shipping weight, 28 pounds. Set. **\$7.20**

Wire Cable

484 E 3946—For above hoist. Strong and durable. Size, ¾ inch. Shipping weight, per 100 feet, 12½ pounds. Price subject to market changes. Per Foot. **9c**

Steel Tee Plate



84 E 4231—Without screws. Ship. wt., dozen, 1 to 4½ lbs.

| Size | Width | Doz. |
|---------|-------|------|
| 3x3 in. | ¾ in. | 30c |
| 4x4 in. | ¾ in. | 40c |
| 5x5 in. | ¾ in. | 55c |

Steel Flat Corner

84 E 4230—Ship. wt., doz., 1 to 3½ lbs. Without screws.

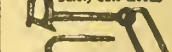
| Size | Width | Doz. |
|---------|-------|------|
| 3x3 in. | ¾ in. | 30c |
| 4x4 in. | ¾ in. | 40c |
| 5x5 in. | ¾ in. | 55c |

Corner Irons

84 E 4228—Ship. wt., doz., 1½ to 8½ lbs. Without screws. (Give size.)

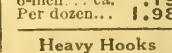
| Size | Width | Doz. |
|---------|-------|------|
| 2x2 in. | ¾ in. | 29c |
| 3x3 in. | ¾ in. | 45c |
| 4x4 in. | ¾ in. | 80c |

Safety Gate Hooks



84 E 3892—Timed Malleable Iron Hooks. 4-inch ea. **\$.14** Per dozen. **1.54** 6-inch ea. **1.98** Per dozen. **1.98**

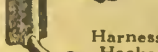
Heavy Hooks



84 E 3884—Complete. Per dozen. **35c**

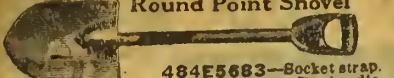
6-inch. For dozen. **54c**

Harness Hooks



84 E 4316—Ship. wt., 1½ to 2½ lbs. Length, in. 10 12 20c 23c Dozen. **\$2.20 \$2.5**

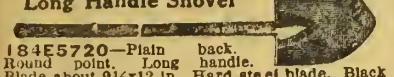
Round Point Shovel



484E5683—Socket strap. Round point. D handle. Blade, 9 1/2 x 12 1/2 inches. Hard steel blade. Black finish. Ship. wt., 5 lbs. **\$1.25**

484E5684—Hollow back. Black finish. Ship. wt., 5 lbs. **\$1.15**

Long Handle Shovel



184E5720—Plain back. Round point. Long handle. Blade about 9 1/2 x 12 in. Hard steel blade. Black finish. Ship. wt., 5 1/2 lbs. **\$1.25**

184E5721—Hollow back. Black finish. Ship. wt., 5 1/2 lbs. **\$1.15**

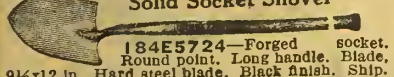
D Handle Shovels



484E5681—Socket strap. Square points. D handle. Blade, 9 1/2 x 11 1/2 inches. Hard steel blade. Black finish. Ship. wt., 5 lbs. **\$1.25**

484E5680—Hollow back. Black finish. Ship. wt., 5 lbs. **\$1.15**

Solid Socket Shovel



184E5724—Forged socket. Round point. Long handle. Blade, 9 1/2 x 12 in. Hard steel blade. Black finish. Ship. wt., 6 lbs. **\$1.74**

Coal Shovel



484E5688—Hollow back. D handle. An excellent sand, grain or coal shovel. Blade, 12 x 14 in. Black finished steel. Ship. wt., 5 1/2 lbs. **\$1.25**

Furnace Scoop



484E5732—Hollow back. Square point. Wood D handle. Blade, 9 x 14 inches. Black finished steel. Shipping weight, 4 1/2 pounds. **78c**

"D" Handles



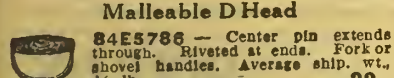
Shipping weight, each, 2 lbs. **58c**

484E5780—Fits any D handle shovel. Each. **56c**

484E5781—Fits any D handle spade. Ship. wt., 2 lbs. **59c**

484E5782—Fits any size scoop shovel. Ship. wt., 2 lbs. **59c**

Malleable D Head



484E786—Center pin extends through. Riveted at ends. Fork or shovel handles. Average ship. wt., 1/2 lb. **22c**

Garden Socket Hoe



Lakeside, extra quality hoes with polished steel blade. Solid socket shank holds handle securely. Hardwood handle. Lgh. about 4 1/2 ft. Shipping weight, 3 pounds. **88c**

184E5880—Width, 6 1/2 in. **88c**

184E5881—Width, 7 1/2 in. **90c**

Forged Steel Planters' Hoes



Oval eye, 2 1/2 x 1 1/2 in. steel blade. Wt., 1 1/2 to 1 3/4 lbs. Without handles. Ship. wt., 2 pounds. **45c**


34E5904—Width, 7 in. **45c**

34E5905—Width, 8 in. **50c**

Handles

484E5907—Lgh., 5 ft. Ship. wt., 2 lbs. **35c**

Standard Pruning Shear



34E5950—Steel blade, iron handle and flat brass springs. Also used as sheep toe clippers. Length, 9 in. Ship. wt., 14 oz. **49c**

Hedge Shear



34E5994—Steel blades. Notched for cutting large branches. 10 in. Hardwood handle. Lgh. 10 1/2 in. Ship. wt., 4 to 6 lbs. Blade, in. 8 10 **\$1.75 \$2.15**

Double-edge Pruning Saw



34E5975—Double Edge Pruning Saw. Spring steel blade, length 18 inches. Handy for many purposes. Shipping weight, 3 pounds. **90c**

Swivel Blade Pruning Saw



34E5972—Steel frame, hardwood handle. Blued steel 18-inch blade. Filed and set. Shipping weight, 1 pound. **\$1.85**

Shovels - Huskers - Hay Knives

General Purpose Shovel



184E5730—A good general purpose shovel. Blade, 11 1/2 x 14 in. Black Finished Steel. Ship. wt., 5 lbs. **69c**

Two Very Useful Additions to Your Supply of Tools

Grain and Coal Scoop



184E5730—A fine grain and coal scoop. Lgh. blade, 16 1/2 to 18 1/2 in. Ship. wt., 6 1/2 to 8 lbs.

| Article No. | Size No. | Width of Blade, in. | Each |
|-------------|----------|---------------------|--------|
| 184E5690 | 6 | 13 | \$1.69 |
| 184E5691 | 8 | 13 1/2 | 1.80 |
| 184E5692 | 10 | 14 1/2 | 1.92 |

Steel Spade



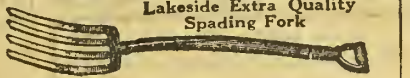
484E5700—Size, 7 1/2 x 12 inches. Hardwood D Handle. Shipping weight, 5 1/2 pounds. **\$1.25**

Lakeside Ensilage Fork



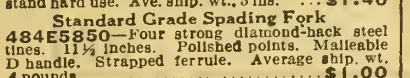
184E5748—Fork for general barn use. 10 polished oval tines 17 inches long, sharp points. Strapped ferrule, and malleable D handle. Shipping weight, 3 pounds. **\$2.55**

Lakeside Extra Quality Spading Fork



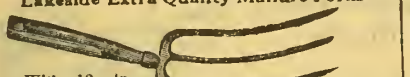
484E5852—With four heavy diamond-back steel tines. 11 1/2 inches. Bent handle with steel D top. Strapped ferrule. A strong fork that will stand hard use. Ave. ship. wt., 5 lbs. **\$1.40**

Standard Grade Spading Fork



484E5850—Four strong diamond-back steel tines. 11 1/2 inches. Polished points. Malleable D handle. Strapped ferrule. Average ship. wt., 4 pounds. **\$1.00**

Lakeside Extra Quality Manure Forks



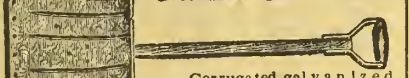
With 12 in. tines 4 1/2 ft. bent handle. Strapped ferrules. Av. Ship. wt., 4 lbs. **\$1.18**

184E5834—4 tine, **1.35**

184E5835—5 tine, **1.38**

184E5836—6 tine, **1.38**

Galvanized Snow Shovel

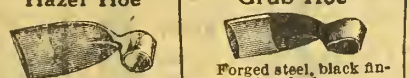


Corrugated galvanized steel blade with strong angle braces riveted on back. Hardwood handle with steel D. A strong light wt. shovel, easy to handle. Length over all 51 inches. Ship. wt., 6 lbs. **\$1.48**

184E5734—Blade 17 x 15 1/2. **1.65**

184E5735—Blade 21 x 16. **1.65**

Hazel Hoe



34E6110—Forged steel. Width, 6 inches. Shipping weight, 3 1/2 pounds. **\$1.15**

Grub Hoe

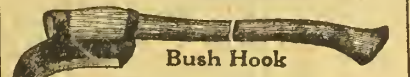


Forged steel, black finish, polished edge. 34E6114—Width, about 3 1/2 inches. Shipping weight, 4 pounds. **85c**

34E6115—Width, about 3 1/2 inches. Shipping weight, 4 1/2 pounds. **93c**

484E6101—Hickory handle, 36 inches. Shipping weight, 2 pounds. **25c**

Bush Hook



184E6075—With heavy forged steel blade, polished edge. Full size hickory handle. Length, about 36 inches. Shipping weight, 4 pounds. **\$1.45**

Swiss Pruning Shear



34E5964—Crucible steel blade. Double brass springs. Ratchet lock adjusting nut. Full polished malleable handle. Length, 8 1/2 in. Ship. wt., about 1 lb. **\$2.38**

Pruning Shear



34E5990—Popular Buckeye pattern. Steel blades with 22 in. hardwood handle. Ship. wt., 3 pounds. **\$1.48**

Long Tree Pruners



184E6000—Steel blade and head. Wood pole and lever. Pruning easily done while standing on the ground. Shipping weight, 2 1/2 to 2 3/4 pounds.

| | |
|---|--------|
| Length, 6 feet, | \$1.20 |
| Length, 8 feet, | 1.35 |
| Length, 10 feet, | 1.50 |
| Length, 12 feet, | 1.65 |
| 34E6002—Head only without pole or rope, | \$1.10 |
| 34E6003—Extra Knives for above pruners. Shipping weight, 3 ounces. | 15c |


Handy Vegetable Fork



Hard steel round tines with flattened tips. D handle. Strapped ferrule. Shipping weight, 8 1/2 to 9 pounds.

| | |
|--|--------|
| 184E5743—8 Tines, 12 1/2 in. wide, | \$1.80 |
| 184E5744—10 Tines, 15 in. wide, | 2.40 |
| 184E5745—12 Tines, 17 1/2 in. wide, | 2.50 |

Coke Fork



Flat Tipped. Steel Tines Shipping weight, 8 to 9 pounds.

| | |
|--|--------|
| 184E5740—10 Tines, 14 in. wide, | \$2.35 |
| 184E5741—12 Tines, 18 in. wide, | 2.45 |
| 184E5742—14 Tines, 20 1/2 in. wide, | 2.90 |

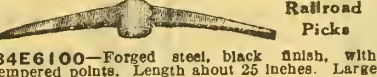
Lakeside Extra Quality Hay Forks



Three 12-inch polished steel tines. Bent ash handles, smoothly finished. Long strapped steel ferrule. Av. ship. wt., 3 lbs.

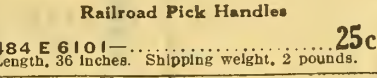
| | |
|--------------------------------------|--------|
| 184E5800—4 ft. handle, | \$.98 |
| 184E5801—4 1/4 ft. handle, | 1.10 |
| 184E5802—5 ft. handle, | 1.15 |
| 184E5803—5 1/4 ft. handle, | 1.30 |
| 184E5809—5 ft. Straight handle, | 1.05 |

Railroad Picks



34E6100—Forged steel, black finish, with tempered points. Length about 25 inches. Large oval eye. Ship. wt., 6 to 7 lbs. **89c**

Railroad Pick Handles



484E6101—Length, 36 inches. Shipping weight, 2 pounds. **25c**

Millstone Dressing Picks



34E6105—Tempered steel, oil finish. Oval eye for wood handle. Give size. Shipping weight, 2 to 5 pounds.

| | |
|---------------------------------|-----------------------|
| Average weight, 1 1/2 2 2 1/2 3 | 68c 90c \$1.15 \$1.35 |
|---------------------------------|-----------------------|

Corn Huskers



16 x 3 1/2 inches. Fashioned smooth wood handle, riveted through blade. Ship. wt., 1 1/2 lbs. **38c**

34E6064—Polished steel blade, beveled cutting edge 16 x 3 inches. Hardwood handle. Shipping weight, 1 1/2 pounds. **44c**

Corn Huskers



34E6048—Heavy steel plate with two adjustable steel hooks plated. Extra wide heavy leather wrist band, three straps and buckles. A very strong, heavy husker for hard use. Shipping weight, each 6 ounces. **53c**

Clipper Pattern Scythe



484E6012—Lakeside Scythe. Solid steel. Double ribbed. A stiff, light-weight scythe and a favorite. Natural black finish. Ground edges. Ship. wt., 3 lbs. Length, 30 inches. **\$1.43**

184E6018—18 to 20 in. Bush Scythe. **1.45**

Corn Huskers




34E6047—Heavy steel plate adjustable hook with three-buckle leather strap. Shipping weight, 6 ounces. **47c**

34E6040—Has cone a v e hooks. Made entirely of steel, nickel-plated. Shipping weight, each, 1 1/2 oz. **12c**

34E6043—Fitted with heavy steel hook and shield on tough mule-skin leather. Wide wrist-band. Shipping weight, each, 4 ounces. **48c**

Pin Huskers



34E6042—The slack is adjusted by means of clamp and nut, has sliding cover sleeve. Ship. wt., each, 2 oz. **38c**

Drain Spade



Socket strap. Round point. D handle. Concave blade. Hard steel blade. Black finish. Blades taper from 5 1/2 inches at step to 4 1/2 inches wide at point. Ship. wt., 4 1/2 to 5 1/2 lbs. Give size.

484E5704—Length, 18 in. **\$1.79**

484E5705—Length, 20 in. **1.94**

Post Hole Spade

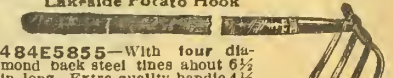


Socket strap. Square point. D handle. Concave blade. Hard steel blade. Black finish. Width blade 5 1/2 to 6 in. Ship. wt., 5 1/2 lbs. Give size.

484E5706—Length, 18 in. **\$1.75**

484E5707—Length, 20 in. **1.95**


Lakeside Potato Hook



484E5855—With four diamond back steel tines about 6 1/2 in. long. Extra quality handle 4 1/2 feet long. Ship. wt., 3 1/2 lbs. **75c**

484E5856—With five oval steel tines, goose neck. Shank. Ship. wt., 3 1/2 lbs. **\$1.12**

Lakeside Manure Hooks



184E5858—With 4 bent oval steel tines. Width, 8 in. White ash handle, about 5 1/2 ft. Average ship. wt., 3 lbs. **\$1.15**

Lakeside Extra Quality Manure Forks

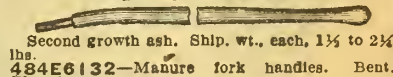


484E5844—With 12 in. polished steel tines. Malleable D handles. Strapped ferrules. Average ship. wt., 4 lbs. 4 Tines. Each. **\$1.20**

484E5845—5 Tines. **1.45**

484E5846—6 Tines. **1.70**

Bent Fork Handle



Second growth ash. Ship. wt., each, 1 1/2 to 2 1/4 lbs.

484E6132—Manure fork handles. Bent. Give size.

| | |
|--------------------|---------------------|
| Length, feet, | 4 4 1/2 5 5 1/2 6 |
| | 33c 37c 44c 48c 50c |

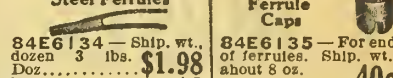
Straight Fork Handles



484E6130—Straight Hay Fork handles. Give size.

| | |
|-------------------|-------------|
| Length, ft., | 5 5 1/2 6 |
| | 32c 39c 50c |


Steel Ferrules



34E6134—Ship. wt., dozen 3 lbs. **\$1.98**

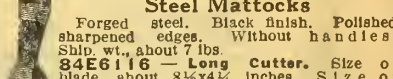
Each. **.18**

Ferrule Caps



34E6135—For end of ferrules. Ship. wt., about 8 oz. **40c**

Steel Mattocks



Forged steel. Black finish. Polished sharpened edges. Without handles. Ship. wt., about 7 lbs.

34E6116—Long Cutter. Size of blade, about 8 1/2 x 4 1/2 inches. Size of cutter, aft. 6 x 3 in. Each. **\$1.10**

34E6117—Short Cutter. Size of blade, about 8 1/2 x 4 1/2 inches. Cutter, about 4 1/2 x 3 in. Each. **\$1.05**

484E6101—Length, 36 in. To fit mattocks. Ship. wt., about 2 lbs. **25c**

Sickle Edge Hay Knife



With Adjustable Handle.

484E6080—Cutting edge is made in sections, riveted to strong metal back. Has toothed edge, which is always sharp. Shipping weight, 5 pounds. **\$2.30**

Lightning Pattern Hay Knife



484E6082—Forged steel polished edges, well made. Shipping weight, 5 pounds. **\$1.52**

Scythe Snath



484E6020—Made of selected seasoned wood. Patent loop and wrench. Length, 58 inches. Average shipping weight, 3 1/2 lbs. **\$1.65**

Upright Hay Knife



184E6084—Blade made from the best tool steel. Has a draw cut, works easily and rapidly. Shipping weight, 5 pounds. **\$1.50**

Wheel Barrows, Hoists, Wire Rope



Solid Steel Barrow \$7.95

Heavy one-piece steel tray, with edges turned over a round bar. Greatest depth at the front end, throwing heaviest load on the wheel. Dumps forward. Handles of heavy steel tube, in one piece. Braces securely bolted. Will stand hardest usage. Steel wheel, 16x1 1/2 inches. Made in three sizes. Well painted. Shipped taken apart to save you freight. Easily set up.

| Article Number | Cap. cu.ft. | Length Tray | Width Top | Depth Front | Ship. wt. | Each |
|----------------|-------------|-------------|-----------|-------------|-----------|--------|
| 184 E 5607 | 3 | 32 in. | 28 in. | 7 in. | 62 lbs. | \$7.95 |
| 184 E 5608 | 4 | 37 in. | 29 in. | 9 in. | 65 lbs. | 8.75 |
| 184 E 5609 | 6 | 43 in. | 33 in. | 12 in. | 85 lbs. | 11.95 |



Railroad Barrow \$2.98

184 E 5604—Selected seasoned hardwood, securely bolted and braced. Tight, well made tray. Full size. Depth at handles, 10 inches; width, 34 inches; length on top, 26 inches. Steel wheel diameter, 16 inches; width, 1 1/2 inches. Shipped flat. Easily set up. Shipping weight, 37 pounds. \$2.98



Garden Barrow \$4.95

184 E 5600—A popular low-priced barrow. Hardwood frame, steel-braced legs. Width of box at wheel, 16 1/2 inches; width at handles, 20 1/2 inches; depth, 11 1/2 inches; length inside, 28 inches. Steel wheel, diameter, 20 inches; width, 1 1/2 inches. Sides are removable, nicely painted. Shipped flat, easily set up. Shipping weight, 46 pounds. \$4.95

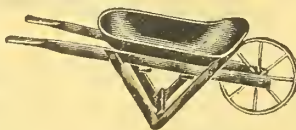


\$5.45 Strong Garden Barrow

184 E 5602—Very popular, well made barrow for all around use. Only first class material used. Legs made of strong angle steel. Sides are removable. Dash strongly braced. Handles are of proper distance apart to evenly balance the load.

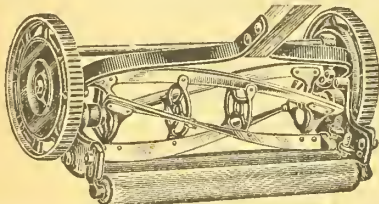
Inside measurements of box, length, 28 inches; width at handles, 20 1/2 inches; width at wheels, 16 1/2 inches; depth, 11 1/2 inches. Well seasoned wood frame. Large 20x1 1/2 inch steel wheel with wide tire, and solid steel axle. All neatly painted, striped and varnished. Shipped flat, easily set up. Shipping weight, 49 pounds. \$5.45

Seamless Steel Barrow \$4.95



184 E 5606—Tray is pressed from a single sheet of steel, without seam or lap, 18-gauge; the edge is turned over a 5/11-inch steel rod; this stiffens the tray and gives a round, finished edge. Length, 33 inches; width, 32 inches; depth at wheel, 11 inches; at handle, 7 1/2 inches. Tray mounted on triangular blocks of wood. No. 2 wheel. Capacity, 3 cubic feet. Weight, 41 pounds. Code word, Spar. \$4.95

Lakeside Ball Bearing Lawn Mower



Famous Lakeside Brand—Self sharpening—4 revolving cutters—9-inch wheels—highest quality. Shipping weight, 45 to 49 pounds.

| Article Number | Width, Blade | Each |
|----------------|--------------|---------|
| 184 E 5572 | 14 inches | \$10.95 |
| 184 E 5573 | 16 inches | 11.25 |
| 184 E 5574 | 18 inches | 11.80 |

Forged Rake



Lakeside steel rake forged from one piece of steel. With steel bow brace. Long handle. Attractive and durable. Shipping weight, 3 1/4 pounds.

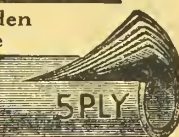
| | |
|---------------------|-----|
| 184 E 5862—12 teeth | 78c |
| 184 E 5863—14 teeth | 95c |

Adjustable Nozzle



84 E 7900—Extra quality. Adjustable from a solid stream to a fine spray. Made of brass. For 1/2, 3/4 and 1-inch hose. Length, 4 in. Ship. wt., 5 oz. 50c

Garden Hose



84 E 7850—An excellent Rubber Hose, 1/2-inch, includes regular 3/4-inch standard brass coupling. Will give good service. Has rubber inner tube, five-ply woven fabric, vulcanized together, with a rubber cover. Ship. wt., 50-ft. length, 20 lbs. 25-foot length, with couplings \$2.85 50-foot length, with couplings \$5.60

Non-Kinkable Rubber Hose



Our strongest and best Garden Hose. Far superior to common hose. Circular braided, double woven cotton jacket insertion gives remarkable strength, and makes kinking impossible. Heavy seamless molded rubber covering. Sold in any continuous length up to 500 feet. Shipping weight, 50-foot length, 16 to 19 pounds.

Complete with brass couplings fitted to length ordered
84 E 7862—Size, 1/2 inch. Excellent for greenhouses, lawns or spray pumps. Per foot. 15c
84 E 7861—Size, 3/4 inch. Special 16 1/2c
84 E 7860—Size, 1 inch. Special Sale 18c Per foot.

HOISTS

Boston Self-Locking Hoists

84 E 6180 Heavy malleable iron, galvanized. Roller bearing. Works either vertically or horizontally. Load may be instantly held by self-locking device.

Will not cut or chafe rope. Roller bearings make it possible to lift heavier load than with plain sheaves. Prices are for one upper and one lower block. Wt., per set, from 3 lbs. to 21 lbs. (Give size.)

Without rope. lbs. to 21 lbs. (Give size.)

| Capacity Lbs. | For Rope Inch. | Ship. Wt. Lbs. | Blocks Furnished | Per Set |
|---------------|----------------|----------------|------------------|---------|
| 1200 | 3/4 | 7 | Dbl. Dbl. | \$4.98 |
| 1700 | 1 | 17 | Dbl. Sde. | 6.25 |
| 2000 | 1 1/4 | 20 | Dbl. Dbl. | 6.40 |
| 2500 | 1 1/2 | 25 | Tpl. Dbl. | 8.25 |
| 3000 | 1 3/4 | 28 | Tpl. Tpl. | 9.90 |

Wood Tackle Blocks, Iron Strapped

The shell is of hardwood, with rounded edges to prevent wearing the rope. Iron sheave wheels revolve on steel pins. The single block is shown in illustrations with becket. The double and triple blocks are made with and without becket. Always state which is wanted. Not suitable for use with chain. Intended for rope only.

| Size of shell, in. | For rope, in. | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
|---------------------------------|---------------|------|------|------|------|------|------|------|
| 484 E 6150—Single, with becket. | 1 1/2 | 49c | 57c | 69c | 82c | 1.19 | 1.98 | 3.20 |
| 484 E 6152—Double, No becket. | 1 1/2 | .98 | 1.10 | 1.25 | 1.55 | 2.05 | 3.24 | 5.40 |
| 484 E 6153—Double, with becket. | 1 1/2 | 1.00 | 1.12 | 1.27 | 1.57 | 2.07 | 3.26 | 5.42 |
| 484 E 6154—Triple, no becket. | 2 1/2 | 1.35 | 1.42 | 1.84 | 2.20 | 2.98 | 4.50 | 7.65 |
| 484 E 6155—Triple, with becket. | 2 1/2 | 1.37 | 1.44 | 1.86 | 2.22 | 3.00 | 4.52 | 7.67 |

Burr Steel Safety Lift

84 E 6185—

Locks securely on wet or greasy rope. Does not cut or wear rope. No springs to get out of order. Will lock positively at any angle.

One man can scald hogs, stretch fence, put away hay, change his wagon box, handle logs, etc. Prices are for one upper and one lower block without rope. Simple instructions with each set. Give size. Ship. wt., 5 to 28 lbs.

| Mrs. Size | For Rope, in. | Cap. Lbs. | Per Set |
|-----------|---------------|-----------|---------|
| 3 | 3/4 | 800 | \$1.48 |
| 4 | 1 | 1500 | 2.88 |
| 5 | 1 1/4 | 2000 | 3.70 |
| 6 | 1 1/2 | 2500 | 4.50 |
| 8 | 1 3/4 | 3000 | 5.30 |
| 10 | 2 | 4000 | 6.40 |
| 12 | 2 1/2 | 5000 | 7.50 |

Jack Screws



Cast Jack Screws

84 E 6200 Heavy cast iron screw, collar and plate. Seamless threads. Used largely by house-movers. Diam. of screw, 3 in. Ship. wt., 55 to 68 lbs. Over All Each 20 in. \$3.95 24 in. 4.75 30 in. 5.75

| Diam. in. | Stand. in. | Total in. | Wt. Lbs. | Each |
|-----------|------------|-----------|----------|--------|
| 1 1/2 | 8 | 12 | 16 | \$2.65 |
| 1 3/4 | 10 | 14 | 19 | 2.98 |
| 2 | 12 | 16 | 21 | 3.48 |
| 2 1/4 | 14 | 18 | 25 | 3.95 |
| 2 1/2 | 16 | 20 | 26 | 4.30 |
| 2 3/4 | 18 | 22 | 29 | 4.65 |
| 3 | 20 | 24 | 32 | 4.15 |
| 3 1/4 | 22 | 26 | 35 | 4.68 |
| 3 1/2 | 24 | 28 | 30 | 5.20 |
| 3 3/4 | 26 | 30 | 48 | 6.38 |

Ratchet Jack Screw



84 E 6198—Quick-acting and lifts load easily. Has heavy iron base and cap. The screw is cut from solid cold rolled steel; diam. 2 in. Diam. of base, 9 in. Height of stand, 10 in. Height over all, closed, 16 in.; open, 23 in. Safe use of screw 7 in. Ship. wt., 42 lbs. Cap. 25 tons. \$5.45

Iron Rope Hoists

A useful hoist on every farm. Easy to operate. Will securely hold the weight at any point. Made of malleable iron. Light, yet substantial in construction. Prices are for one upper and one lower block. (Without rope.)

84 E 6176—For 1/2-in. rope. Capacity, 1500 lbs. Ship. wt., 8 lbs. \$2.25

84 E 6177—For 3/4-in. rope. Capacity, 2000 lbs. Ship. wt., 16 lbs. \$3.60

HOISTS

Differential Chain Hoist

Weston pattern chain hoist, carefully tested. Automatically holds load at any point. Made of the best iron and steel. With enough chain to lift the heights as given in table.

| Number | Cap. Tons | Lift Feet | Ship. Wt. Lbs. | Price Complete |
|------------|-----------|-----------|----------------|----------------|
| 484 E 6190 | 1 1/2 | 7 | 40 | \$14.95 |
| 184 E 6191 | 1 | 8 | 58 | 19.90 |
| 184 E 6192 | 1 1/4 | 8 1/2 | 93 | 26.95 |
| 184 E 6193 | 2 | 9 | 132 | 33.90 |

Steel Tackle Blocks

All steel shells and straps. Heavy forged loose hooks. Cast iron wheels. The shells have rounded edges to protect the rope. The single block is supplied with a becket. We furnish the others with or without becket. For use with rope only, not intended for chain. Give size.



| Trade size of shell, inches. | 4 | 6 | 8 | 10 |
|--------------------------------|-------|------|------|------|
| For Rope, inches. | 1 1/2 | 2 | 3 | 4 |
| 484 E 6160—Single, with Becket | 48c | 66c | 1.05 | 1.78 |
| 484 E 6162—Double, Less Becket | 95c | 1.20 | 1.85 | 2.90 |
| 484 E 6163—Double, With Becket | 97c | 1.22 | 1.87 | 2.92 |
| 484 E 6164—Triple, Less Becket | 1.28 | 1.74 | 2.75 | 4.05 |
| 484 E 6165—Triple, With Becket | 1.30 | 1.76 | 2.77 | 4.07 |



84 E 2382—Cast japanned handle with forged steel jaws. Lgth., open, 23 in. Ship. wt., 5 1/2 lbs. \$1.85



84 E 6454—Steel yokes with malleable block. Painted (without thimble). Ship. wt., 1/2 to 1 1/4 lbs. For rope 1/4 3/8 1/2 3/4 1 1 1/2 2 2 1/2 3 4 5 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100 2110 2120 2130 2140 2150 2160 2170 2180 2190 2200 2210 2220 2230 2240 2250 2260 2270 2280 2290 2300 2310 2320 2330 2340 2350 2360 2370 2380 2390 2400 2410 2420 2430 2440 2450 2460 2470 2480 2490 2500 2510 2520 2530 2540 2550 2560 2570 2580 2590 2600 2610 2620 2630 2640 2650 2660 2670 2680 2690 2700 2710 2720 2730 2740 2750 2760 2770 2780 2790 2800 2810 2820 2830 2840 2850 2860 2870 2880 2890 2900 2910 2920 2930 2940 2950 2960 2970 2980 2990 3000 3010 3020 3030 3040 3050 3060 3070 3080 3090 3100 3110 3120 3130 3140 3150 3160 3170 3180 3190 3200 3210 3220 3230 3240 3250 3260 3270 3280 3290 3300 3310 3320 3330 3340 3350 3360 3370 3380 3390 3400 3410 3420 3430 3440 3450 3460 3470 3480 3490 3500 3510 3520 3530 3540 3550 3560 3570 3580 3590 3600 3610 3620 3630 3640 3650 3660 3670 3680 3690 3700 3710 3720 3730 3740 3750 3760 3770 3780 3790 3800 3810 3820 3830 3840 3850 3860 3870 3880 3890 3900 3910 3920 3930 3940 3950 3960 3970 3980 3990 4000 4010 4020 4030 4040 4050 4060 4070 4080 4090 4100 4110 4120 4130 4140 4150 4160 4170 4180 4190 4200 4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310 4320 4330 4340 4350 4360 4370 4380 4390 4400 4410 4420 4430 4440 4450 4460 4470 4480 4490 4500 4510 4520 4530 4540 4550 4560 4570 4580 4590 4600 4610 4620 4630 4640 4650 4660 4670 4680 4690 4700 4710 4720 4730 4740 4750 4760 4770 4780 4790 4800 4810 4820 4830 4840 4850 4860 4870 4880 4890 4900 4910 4920 4930 4940 4950 4960 4970 4980 4990 5000 5010 5020 5030 5040 5050 5060 5070 5080 5090 5100 5110 5120 5130 5140 5150 5160 5170 5180 5190 5200 5210 5220 5230 5240 5250 5260 5270 5280 5290 5300 5310 5320 5330 5340 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 5460 5470 5480 5490 5500 5510 5520 5530 5540 5550 5560 5570 5580 5590 5600 5610 5620 5630 5640 5650 5660 5670 5680 5690 5700 5710 5720 5730 5740 5750 5760 5770 5780 5790 5800 5810 5820 5830 5840 5850 5860 5870 5880 5890 5900 5910 5920 5930 5940 5950 5960 5970 5980 5990 6000 6010 6020 6030 6040 6050 6060 6070 6080 6090 6100 6110 6120 6130 6140 6150 6160 6170 6180 6190 6200 6210 6220 6230 6240 6250 6260 6270 6280 6290 6300 6310 6320 6330 6340 6350 6360 6370 6380 6390 6400 6410 6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980 6990 7000 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530 7540 7550 7560 7570 7580 7590 7600 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800 7810 7820 7830 7840 7850 7860 7870 7880 7890 7900 7910 7920 7930 7940 7950 7960 7970 7980 7990 8000 8010 8020 8030 8040 8050 8060 8070 8080 8090 8100 8110 8120 8130 8140 8150 8160 8170 8180 8190 8200 8210 8220 8230 8240 8250 8260 8270 8280 8290 8300 8310 8320 8330 8340 8350 8360 8370 8380 8390 8400 8410 8420 8430 8440 8450 8460 8470 8480 8490 8500 8510 8520 8530 8540 8550 8560 8570 8580 8590 8600 8610 8620 8630 8640 8650 8660 8670 8680 8690 8700 8710 8720 8730 8740 8750 8760 8770 8780 8790 8800 8810 8820 8830 8840 8850 8860 8870 8880 8890 8900 8910 8920 8930 8940 8950 8960 8970 8980 8990 9000 9010 9020 9030 9040 9050 9060 9070 9080 9090 9100 9110 9120 9130 9140 9150 9160 9170 9180 9190 9200 9210 9220 9230 9240 9250 9260 9270 9280 9290 9300 9310 9320 9330 9340 9350 9360 9370 9380 9390 9400 9410 9420 9430 9440 9450 9460 9470 9480 9490 9500 9510 9520

Dehorners and Cattle Marking Outfits

Cattle Marking Punch



84 E 6282 — For marking ears. Dies are hollow and cut easily. Always mention number of die you want, as shown. Length, 11 inches. Shipping weight, 2 pounds. Illustrations are about one quarter actual size. Each (give number)..... **\$2.98**

Tattoo Ear Marker



For Tattoo branding the inside of ear. Letters interchangeable. We furnish any letter or figure. Height of letter, $\frac{3}{16}$ in. Ship. wt. $\frac{1}{2}$ lbs. Directions for marking on each bottle of tattoo ink. **84 E 6285** — Marker with any three letters or figures. State plainly letters or figures. State wanted. Complete..... **\$1.65**
84 E 6286 — Extra letters or figures. Ship. wt., 1 oz. Each..... **25c**
Tattoo Ink — One bottle will mark 500 ears. **84 E 6287** — Black. Bottle contains 2 oz. Ship. wt., 6 oz. Each..... **45c**
84 E 6288 — Red, bottle. **45c**

Interchangeable Marker



84 E 6290 — Stock marking punch with interchangeable tempered dies. Japanned iron handle with concealed coil spring. Length, 11 inches. Shipping weight, 2 pounds. With one die (give style of die)..... **\$1.85**
84 E 6291 — Extra Dies (give style). Shipping weight, 2 ounces. Each..... **42c**

Oval Hole Ear Punch



84 E 6303 — For Sheep and Hog labels. Shipping weight, 14 ounces. Each..... **95c**
84 E 6304 — For Extra Large Cattle labels. Shipping weight, $\frac{1}{2}$ pounds. Each..... **\$1.40**

American Sheep Shears



High-grade cutlery steel. Finely finished. Swaged, full-polished, 6-in. blades. Ship. wt., 13 oz. **84 E 6392** — Straight. **89c**
84 E 6393 — Bent Shears. Each..... **89c**

Metal Ear Labels

With letters or figures stamped on to order. Intended to attach to the animal's ear. Put on with our oval hole ear punch listed above. On the Sheep and Hog size we can stamp not to exceed 11 large letters; Cattle and Extra Large Cattle not to exceed 15 letters or figures. On Cattle sizes only, name and address can be put on if not exceeding 22 letters, small type. Notice—Write plainly, numbers or letters or name wanted. These labels being stamped to order, will cause a delay of 5 to 7 days. These prices include postage.

| With Name and Number | | | | With Name Only or Number Only | | | |
|----------------------|-------------|------------------|-----------|-------------------------------|-------------|------------------|-----------|
| Sheep and Hog Size | Cattle Size | Extra Large Size | Ship. wt. | Sheep and Hog Size | Cattle Size | Extra Large Size | Ship. wt. |
| 100-51.60 | 100-52.10 | 100-52.60 | 1.05 | 100-51.05 | 100-51.60 | 100-51.90 | 1.05 |
| 50-1.05 | 50-1.35 | 50-1.60 | .70 | 50-.80 | 50-1.10 | 50-1.35 | .70 |
| 25-.70 | 25-.80 | 25-1.10 | | 25-.55 | 25-.65 | 25-.90 | |

Shipped from Chicago postpaid.

Aluminum Stock Marks

Diameter, $\frac{3}{4}$ in. Furnished with one, two or three letters or figures, stamped only on one side. Fastened with any of our hog rings. Give letters or figures wanted. Ship. wt., per 100, $\frac{1}{2}$ lb. **284 E 6292** — Per 100. **85c**
284 E 6293 — Per 50. Postpaid..... **55c**
Mailed from Factory near Chicago, Postage Paid.

Aluminum Ear Buttons

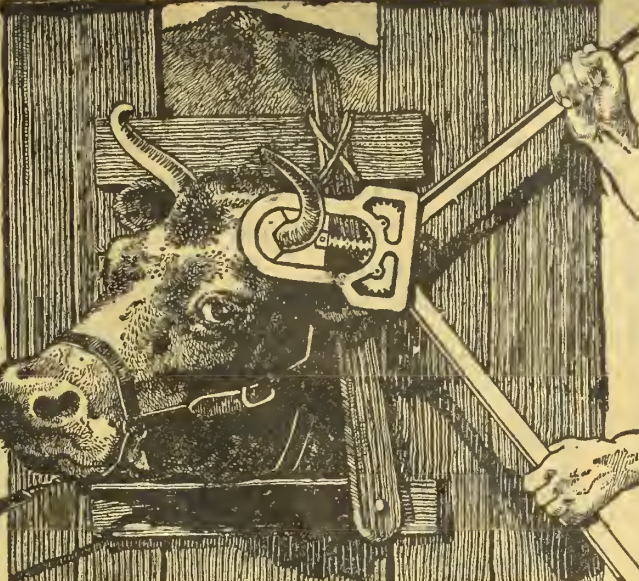
284 E 6295 — Diameter, about $\frac{3}{4}$ in. Each securely. We can place name and address (not to exceed 19 letters), on top, and number on bottom side of button. State plainly name or address to be stamped. Notice—Stamped to order in 5 to 7 days. 25 postpaid for..... **\$1.20**
50 postpaid for..... **3.35**
100 postpaid for..... **3.35**
284 E 6296 — Punch-pliers for attaching buttons. Shipping weight, 11 ounces. Each, postpaid..... **95c**

Brass Ox Horn Ball

84 E 6345 — To put on the horns of vicious cattle. Octagon Diameter, $\frac{1}{4}$ in. Shipping weight, dozen, about, 14 ounces. Each..... **7c**
Dozen..... **86c**

Ear Marking Attachments

84 E 6261 — Dies, for marking ears of cattle. Used with Miller's hog tamer listed above. Made of steel, in three styles. Full size of dies, $\frac{1}{4}$ inch. (Give style wanted, A, B or C.) Ship. wt., 2 oz. Each..... **33c**



Genuine Leavitt Dehorners Make Cows More Productive

Heavy malleable iron head and handles. Keen edge, tempered steel knives. Cuts the horns fast and clean. Knives made so they cannot interlock or cut into each other. Length, about 38 inches. **484 E 6240** — Large size. Opens $\frac{3}{4}$ inches. Shipping weight, 15 pounds. Each..... **\$4.45**
84 E 6241 — Extra blades. Shipping weight, 2 pounds. Set of 2..... **95c**
484 E 6242 — Medium size. Opens $\frac{3}{4}$ inches, which is large enough for ordinary cattle. Shipping weight, 13 pounds. Each..... **\$3.60**
84 E 6243 — Extra blades. Shipping weight, 2 pounds. Set of 2..... **85c**



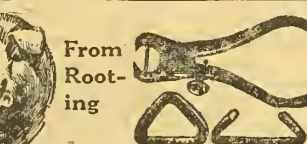
484 E 6247 — Has two V-shaped steel blades, which come together, giving four cutting blades. Easily clips any horn clean and smooth. Total length, 44 inches; blades, open, $\frac{3}{4}$ inches. Shipping weight, complete, 21 inches. Complete, with leader and rope, extra set of blades and screws..... **\$13.95**
Set..... **1.15**



84 E 6254 — Steel frame, iron handle. Tempered 10-inch steel blade. Nickel and japan finish. Shipping weight, about 1 pound. Each..... **\$1.05**
84 E 6255 — Extra 10-inch steel blades. Shipping weight, per dozen, about 8 ounces. Each..... **.10**
Dozen..... **1.15**



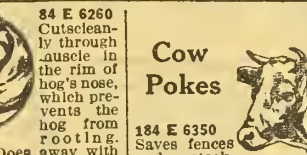
84 E 6270 — Japanned iron. Holds both sizes. Shipping weight, 12 ounces. Each..... **20c**
Wire Hog Rings
84 E 6271 — Hog Rings. Shipping weight, 12 ounces. (Give size.) Per box (100)..... **1.49**
Dozen boxes..... **1.76**



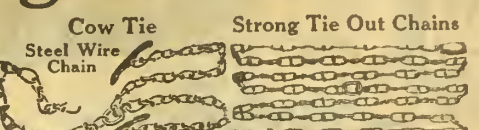
84 E 6273 — Japanned iron. Holds all sizes. Shipping weight, 10 ounces. Each..... **18c**
Wire Hog Rings
84 E 6274 — Pig Rings. Shipping weight, 9 ounces. (Give size.) Per box (100)..... **1.10**
Dozen boxes..... **1.12**



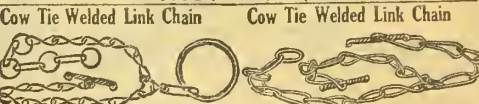
84 E 6280 — Indispensable for holding hogs when ringing, etc. Malleable iron. Shipping weight, $\frac{1}{2}$ pounds. Each..... **60c**



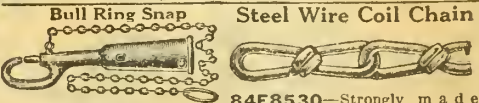
184 E 6350 — Saves fences and stock. Made of steel. Painted. Adjustable in size. Hinged at the center. Shipping weight, 3 pounds. Each..... **55c**
Not Mailable



84 E 6360 — 11 heavy Two toggles. Hard steel, perfect links. Shipping weight, each $\frac{1}{4}$ pounds. Each..... **.25**
Dozen..... **2.90**
84 E 6361 — Light. Two toggles. Shipping weight, each, 1 pound. Each..... **.19**
Dozen..... **1.95**



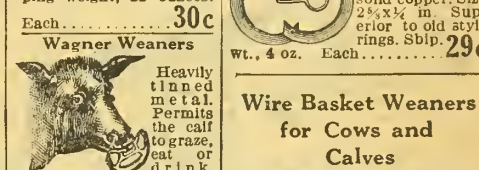
84 E 6366 — Bright welded steel links. Toggle and closed ring. Length, 4 feet. Shipping weight, each, 2 pounds. Each..... **.34**
Dozen..... **3.95**
84 E 6370 — For tethering cattle in pasture. Uniformly made of tough, bright, steel wire. Strong and reliable. With swivel in center and ring and snap on the ends. (Give size.)



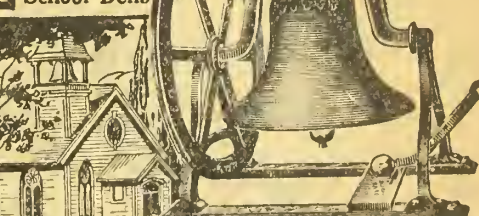
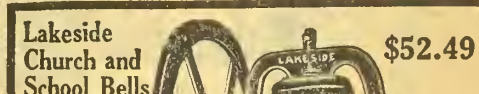
84 E 6342 — Used with bull ring in leading vicious cattle. With three feet of chain. Any rake or hoe handle can be used. Shipping weight, 15 ounces. Each (without handle)..... **88c**
Cattle Tie Iron
84 E 6343 — For $\frac{1}{2}$ -inch rope or smaller. Patent covered spring snap. Tinned. Shipping weight, dozen, 3 pounds. Each..... **.18**
Dozen..... **1.98**



84 E 6340 — Malleable iron. By attaching an ordinary piece of rope the animal can be held securely. Without rope. Length, 8 inches. Shipping weight, 22 ounces. Each..... **30c**
Wagner Weaners
Heavily tinned metal. Permits the calf to graze, eat or drink, yet effectually prevents sucking of cow. **84 E 6326** — Calf size. Shipping weight, 4 ounces. Each..... **.41**
Dozen..... **4.80**
84 E 6327 — Cow size. Shipping weight, 6 ounces. Each..... **.51**
Dozen..... **5.95**



84 E 6320 — Fits calves. Shipping weight, each 9 ounces. Each..... **4.95**
Dozen..... **5.85**
84 E 6321 — Fits 2-year olds. Shipping weight, each 12 ounces. Each..... **5.50**
Dozen..... **5.85**
84 E 6322 — Fits cows. Shipping weight, each 1 pound. Each..... **5.58**
Dozen..... **6.75**



Lakeside Church and School Bells \$52.49
Lakeside Church Bells are made of a special composition metal, producing a clear, rich, mellow sound. The larger the bell, the deeper and richer the tone, which improves as the bell ages. Large, clear-sounding bells for less money than smaller brass bells would cost. Lakeside Church Bells produce a clear, deep, mellow tone that can be heard a great distance, and are complete with tolling hammer. Lakeside School and Factory Bells are of the same quality as our Church Bells but do not have a tolling hammer and are designed for schools, court-houses, and small churches. Note: We will replace free any Lakeside Bell that may break within five years. Prices are for bells complete with wood sills and iron wheels. Sizes over 36 in. have wood wheels. Fitted with smooth, easy running bearings. **284 E 4648** — Church Bells complete with Tolling Hammer. **284 E 4645** — School or Factory Bells (No Tolling Hammer).

BELLS

| Article Number | Mfr. Size | Diam. In. | Av. Wt. Bell Only | Ship. Wt. Comp. | Each Comp. | Price Each |
|----------------|-----------|-----------|-------------------|-----------------|------------|------------|
| 84E6416 | 1 | 14 1/4 | 24 | 38 | \$3.50 | |
| 84E6417 | 2 | 16 | 34 | 50 | 4.45 | |
| 84E6418 | 3 | 18 | 47 | 70 | 6.24 | |
| 84E6419 | 4 | 19 1/4 | 78 | 105 | 8.55 | |

84 E 6402 — Made from pure bell metal, gives a musical, sweet tone. Shipping wt., 1 to 4 lbs. Sizes are approximate. Straps not included. Diam., 4 in. Each..... **.89**
Diam., 5 in. Each..... **1.65**
Diam., 6 in. Each..... **2.55**

84 E 6405 — Length, 1 1/2 inches. Mouth about 1 1/4 x 1 1/4. Ship. wt., each, 7 oz. Each..... **.38**
Dozen..... **4.18**
84 E 6406 — Length, 1 1/2 inches. Mouth, about 1 1/4 x 1 1/4 in. Ship. wt., each, 8 oz. Each..... **.45**
Dozen..... **4.95**

| Size | Mouth | Hgt. | Dozen | Each |
|-----------------|-------|-------|---------|------|
| 0 5/8 x 3 | 7 1/2 | 5 1/2 | \$11.22 | 98c |
| 2 4 x 3 | 5 1/2 | 5 1/2 | 7.48 | 68c |
| 3 3 1/2 x 2 1/2 | 5 | 5 | 5.83 | 53c |
| 7 2 1/2 x 1 1/2 | 2 1/2 | 2 1/2 | 3.20 | 28c |

| Diam. of Bell | Approx. Ship. Wt. | Each |
|---------------|-------------------|---------|
| 30 in. | 560 lbs. | \$52.49 |
| 32 in. | 600 lbs. | 55.88 |
| 34 in. | 750 lbs. | 69.49 |
| 36 in. | 850 lbs. | 82.00 |
| 38 in. | 1200 lbs. | 93.70 |
| 40 in. | 1500 lbs. | 109.50 |
| 44 in. | 1550 lbs. | 157.25 |
| 48 in. | 1950 lbs. | 189.34 |



Polished Bell **84 E 6412** — Cast metal. Harness or sheep bells, etc. 3 1/4 in. 5 oz. **20c**
2 1/4 in. 8 oz. **32c**
Turkey Bells **84 E 6410** — Diam., abt. 1 1/4 in. Complete with strap. Ship. wt., each, 8 oz. Each..... **.19**
Dozen..... **2.15**

Modern Trappers Equipment



Original Newhouse Traps

Made by Onelda Community, Limited. Springs are best crucible steel thoroughly tested. Made of best material, strong proportioned. The experienced trapper's choice. Branded Newhouse on the pan.
84 E 8000—Size 0. For gophers, rats and other vermin. Has a tight grip. Spread of jaws, 3 inches. Shipping weight, per dozen, 8½ pounds. Each. 51c Dozen. \$5.52
84 E 8001—Size 1. For skunks, weasels, raccoons, etc. Spread of jaws, 4 inches. Shipping weight, per dozen, 10½ pounds. Each. 61c Dozen. \$7.32
84 E 8002—Size 1½. For mink, woodchuck, skunk, etc. Spread of jaws, 4½ inches. Shipping weight, per dozen, 14½ pounds. Each 91c Doz. \$9.99

New Victor Giant Trap

84 E 8058—Size 1. Giant Victor Extra strong with jaws spread 4½ inches, catches animal high up on leg. Equipped with lightning action spring and improved swivel at point where chain connects with spring. Has all latest Victor improvements. Ship. wt., doz, 10 lbs. Each. 29c Dozen. \$3.08

Boys' Trapping Outfit

84 E 8065—Boys, make some easy money. Work easy contains six Victor Traps, with hook on ball skinning, stretching, whe to trap and where to set furs. One No. 0, four No. 1; one No. 1½ Trap. For muskrat, skunk, raccoon, mink, opossum, weasel, gopher, etc. Ship. wt., 5 lbs. Price, complete. \$1.88

Ward's Animal Lure

84 E 8115—A bait compound which excites and lures animals, such as skunk, mink, weasel, fox, wolf, wild cat, bear, marten, lynx, otter, raccoon, opossum, etc. An effective aid to any trapper. In 2-ounce bottles. Shipping weight, 4 ounces. Bottle. 25c

Shaw's Pneumatic Smoker

84 E 8110—Enables you to smoke out from the dens and catch many animals in a day during extreme cold weather. Smooth black iron. Size, 4x1½ inches. With directions and smoke out powder. Shipping weight, 4 pounds. \$1.75
84 E 8111—Smokeout Powder. Shipping weight, each, 18 ounces. Box. \$2.22

Coil Spring

"Never-Break" Trap

15c Each \$1.65 Dozen

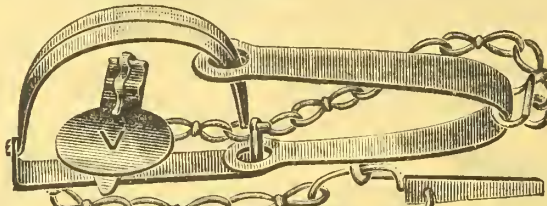
Compact, no long springs to conceal. High hold, pan drops to the bottom. Sure grip, leg pulls into a wedge. Wire Coil Spring, rust proof, will not break.
 Light weight. All steel.
84 E 8157—For muskrat, skunk and mink, etc. Jaw spread, 4 inches. Shipping weight, 7½ pounds per dozen. Price, each. \$.15
 Price, with chains, per dozen. 1.65

Light Weight

All Steel

84E8157

Victor Traps 19c up



Made by the Onelda Community, Limited. Lighter in weight than the Newhouse, but made in a first-class manner. Very popular with the farmer and trapper of small game. Branded with a V on the pan.
84 E 8050—Size 0. For gophers, rats, or other vermin. Has a tight grip. Spread of jaws, 3½ inches. Shipping weight, dozen, 6 pounds. Each. 19c Dozen. \$2.08
84 E 8051—Size 1. For skunks, weasels, rats, etc. Spread of jaws 4 inches. Shipping weight, dozen, 8 pounds. Each. 23c Dozen. \$2.43
84 E 8052—Size 1½. For mink, woodchuck, skunk, etc. Spread of jaws, 4½ inches. Shipping weight, dozen, 12 pounds. Each. 34c Dozen. \$3.68

Triumph Trap Placer

Three tools in one—scoop—killer—placer. Makes out of the way places easy to reach. Suitable for placing traps, as a fire ramrod, for holding trying pan over the fire and many other uses. Length, 17 inches. Shipping weight, 1½ pounds. **84 E 8156**—Each. 70c

Sure-Catch Rat Trap

84 E 8160—Strong Wire Rat Trap. Otter filled in a single night. Made of coppered steel wire, with sheet steel ribs. Strong and substantial. Safety door. Length, 15 inches. Shipping weight, 3 pounds. Each. 90c

Extension Trap Chains

You can instantly double the length of a trap chain, so that a trapped animal may be drowned with certainty or a drag given free play. For all sizes of traps. Quickly attached.
84 E 8105—Size 1. Length, 20 inches. Shipping weight, each, 6 ounces. Each. 11c
84 E 8106—Size 4. Length, 20½ inches. Shipping weight, each, 10 ounces. Each. \$.16 Dozen. \$1.92

Stop Thief Wire Trap

84 E 8080—Size 1. For squirrels, rats, gophers and small animals. Made of hard steel wire. Light, yet strong. With chain. Shipping weight, 12 ounces. Each. 22c Dozen. \$2.35

84 E 8081—Size 2. For mink, rabbits, muskrats, etc. Shipping weight, 1 pound. Each. 26c Dozen. \$2.79
84 E 8082—Size 3. For raccoon, skunk, mink, etc. Shipping weight, each, 1¼ pounds. Each. 34c Dozen. \$3.68
84 E 8083—Size 3½. For skunk, raccoon, etc. Shipping weight, each, 1½ pounds. Each. 47c Dozen. \$5.15

84 E 8155—Wood body, with four holes. Steel springs. Catches mice by the neck and kills instantly. Shipping weight, 8 ounces. Each. 12c

84 E 8154—Strongly made and very effective. Wood bottom, steel spring. Shipping weight, 12 ounces. Each. 11c

84 E 8153—Well made and effective. Wood bottom and steel spring. Shipping weight, dozen, 1 lb. Package, 2 traps, 7c. Doz 35c

End-of-Mice Trap

84 E 8150—So cheap that you can throw mouse and trap away. Very sanitary. Shipping weight, package of ten, 8 ounces. Package of 10 traps for outfit. 16c

Tree Traps

Easy to Find

53c up

Used with great success by many trappers. Made with strong springs. Can be nailed to a tree or stump above the snow. Always easily found.
84 E 8090—Size 1. For mink, marten, etc. Shipping weight, each, 1½ pounds. Each. 53c Dozen. \$5.73
84 E 8091—Size 2. For skunk, coon, etc. Shipping weight, each, 2 pounds. Each. 65c Dozen. \$6.54

Out-O'-Sight Mole Trap

\$1.35

84 E 8130—All steel. Easily set and a sure catcher. Very compact. Can be used in hot beds without interfering with the glass cover. Directions included. Shipping weight, 2½ pounds. Each. \$1.35

Little Giant Mole Trap

79c

84 E 8132—One of the best and most satisfactory mole traps on the market. Does not tear the sod. Set by pulling up plunger rod. Wrought steel frame. Steel prongs, not injured by striking rocks. Height, set, 20½ inches. Width, frame, 4 inches. Shipping weight, about 3½ pounds. Each. 79c

84 E 8070—Size 1. Heavy steel wire. Readily concealed over holes or in runways. Length, 12 inches. Rings, 5½ inches. Shipping weight, each, 1½ pounds. Each. 55c Dozen. \$5.95
84 E 8072—Size 2. Length, 14 inches. Rings, 7 inches. Shipping weight, each, 1¾ pounds. Each. 76c Dozen. \$8.31

Newhouse Gopher Trap

24c

84 E 8138—Carefully tempered spring makes the trap fast and powerful. Length, 5½ inches. Ring, 3 inches. Shipping weight, each, 8 ounces. Each. \$.24 Dozen. 2.55

Western Gopher Trap

84 E 8136—Especially for Pocket Gophers. Usually placed in the burrow. Wood box with steel springs and loop. Size, 6¼x3¼x3 inches. Shipping weight, each 1 pound. Each. 24c Doz. \$2.55

Jump Trap Setting Lever

84 E 8045—For setting all sizes of jump traps. Length, 7 inches. Shipping weight, 9 ounces. Each. 22c

Victor Traps

Sizes 91, 91½

35c

For skunks, weasels, rats, etc. Strong double jaws. Will not injure fur. Animal cannot escape as leg will rarely break in this trap.
84 E 8060—Size 91. Spread of jaws, 4½ inches. Shipping weight, dozen, 10 pounds. Each. 35c Dozen. \$3.80
84 E 8061—Size 91½. Spread of jaws, 5 inches. Shipping weight, dozen, 12 pounds. Each. 50c Dozen. \$5.40

Onelda Jump Traps

Made by Onelda Community, Limited. Very popular with many trappers because light and easy to carry. Lie very flat—easily secreted. Jaws have wide meeting faces, not liable to break the animal's leg. Sizes 0, 1, 1½

26c

84 E 8030—Size 0. For rats or gophers. Light and easy to carry. Jaws have full, wide meeting faces, not likely to break the animal's leg. Spread of jaws, 4 inches. Shipping weight, each, 1 pound. Each. 26c Dozen. \$2.88
84 E 8031—Size 1. For muskrat, etc. Spread of jaws, 4½ inches. Shipping weight, 1 pound. Each. 31c Dozen. \$3.42
84 E 8032—Size 1½. For mink. Spread of jaws, 5½ inches. Shipping weight, 1¼ pounds. Each. 45c Dozen. \$4.86

Sizes 91, 91½

41c

84 E 8038—Size 91. With wide, double jaws. Takes a firm grip high up on the animal's leg so it cannot gnaw loose. Spread of jaws, 4½ in. Ship. wt., each, 14 oz. Each. 41c Dozen. \$4.44
84 E 8039—Size 91½. Spread of jaws, 5 inches. Shipping weight, each, 1 pound. Each. 57c Dozen. \$6.11

Sizes 2, 3, 4

70c

84 E 8034—Size 2. For coon, mink, etc. Spread, 5½ inches. Shipping weight, each, 1½ pounds. Each. 70c Dozen. \$7.60
84 E 8035—Size 3. For fox or otter. Spread, 6½ inches. Shipping weight, each, 2 pounds. Each. 95c Dozen. \$10.40
84 E 8036—Size 4. For coyote, lynx, etc. Spread, 7½ inches. Shipping weight, each, 3 pounds. Each. \$1.11 Dozen. \$12.22

84 E 8025—Size 4 is for any trap smaller than No. 4½. Size 5 and 6 clamps are for large bear traps. Shipping weight, 6 ounces to 2 pounds. Size. 3 4 5 6 Each. 31c 74c \$1.23



Victor Traps

84 E 8053—Size 2. For foxes. Spread of jaws, 4½ inches. Shipping weight, per dozen, 15 pounds. Each. 57c Dozen. \$6.84
84 E 8055—Size 3. For otter and similar game. Spread, 5½ inches. Shipping weight, each, 2½ pounds. Each. \$.79 Dozen. \$8.60
84 E 8056—Size 4. For beaver, etc. Spread, 6½ inches. Shipping weight, 3 pounds. Each. 95c Dozen. \$10.36



Newhouse Bear Traps

84 E 8008—Size 5. Especially for common black bear. Strong chain and swivel. Spread of toothed jaws, 11½ inches. Shipping weight, 22 pounds. Each. \$16.71
84 E 8013—Size 15. Jaws have ¾-inch offset, which allows the spring to come up high, and hold securely. Spread of jaws, 11½ inches. Shipping weight, 25 pounds. With setting clamp and spring holder. \$16.71
84 E 8010—Size 6. Strongest trap made. Spread of jaws, 16 inches. Shipping weight, 45 pounds. Each. \$37.69



Newhouse Traps

84 E 8003—Size 2. Called the Fox Trap. Spread of jaws, 4½ inches. Similar to No. 1½, but having two springs is, of course, much stronger. Shipping weight, dozen 15 pounds. Each. \$1.35 Dozen. \$14.77
84 E 8005—Size 3. Very powerful; will hold almost any game smaller than a bear. Spread of jaws, 5½ inches. Shipping weight, each, 3½ pounds. Each. \$1.80 Dozen. \$19.70
84 E 8006—Size 4. Especially for beaver. A favorite with trappers in the far west and Canada. Spread of jaws, 6½ inches. Shipping weight, each, 4½ pounds. Each. \$2.12 Dozen. \$23.23



Newhouse Deer Trap

84 E 8012—Especially for deer. Jaws have an offset to prevent breaking the deer's leg. Teeth in jaws sufficiently close together to prevent the animal from drawing its hoofs out. Spread of jaws, 6½ inches. Shipping weight, 4½ pounds. Each. \$2.26 Dozen. \$24.77



Newhouse Wolf Trap

84 E 8007—Especially for wolves. Extra heavy 5-foot steel chain with swivel, heavy snap and drag. Spread of jaws, 8½ inches. Will hold 2000 pounds. Shipping weight, 9 pounds. Each. \$5.65



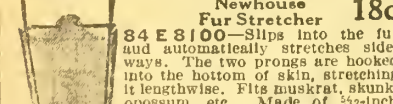
Newhouse Otter Trap

84 E 8004—Used especially for catching otter on their slides. Sharp teeth pierce the animal's breast. Detachable, raised pan-plate makes this a trap of general utility. Spread of jaws, 5½ inches. Shipping weight, each, 3 pounds. Each. \$2.12 Dozen. \$23.23



Newhouse Traps

The wide, double jaws rarely break bones and grip so high that the animal can not get out.
84 E 8020—Size 81. For muskrat, etc. Spread of jaws, 4 inches. Shipping weight, each, 1¼ pounds. Each. 71c Dozen. \$7.72
84 E 8021—Size 91. For skunk, muskrat, etc. Same size as No. 1 Newhouse. Spread of jaws, 5½ inches. Shipping weight, each, 1½ pounds. Each. 77c Dozen. \$8.38
84 E 8022—Size 91½. For mink, woodchuck, etc. Same size as No. 1½ Newhouse. Spread of jaws, 6¼ inches. Shipping weight, each, 2 pounds. Each. \$1.15 Dozen. \$12.57



Newhouse Fur Stretcher

84 E 8100—Slips into the fur and automatically stretches sideways. The two prongs are hooked into the bottom of skin, stretching it lengthwise. Fits muskrat, skunk, opossum, etc. Made of ½-inch galvanized spring steel wire. Total length, 20 inches, prongs, 3¼ inches. Shipping weight, dozen, 4 pounds. Each. \$.18 Dozen. \$1.98

Serviceable and Rust-Resisting Eave Troughs

The Slip Joint Makes It Easy

The Slip Joint makes it easy for any man to put up this Trough. Simply push it together. No Tinner needed. Makes a neat, tight job and requires no soldering at the joints. Always state whether right or left hand trough is wanted. We recommend the extra heavy 26 gauge, or send sketch showing position of outlets, etc. We recommend the extra heavy 26 gauge. Costs no more to put up, lasts twice as long as standard gauge and at our prices will afford a big saving.

O-G Box Eave Trough

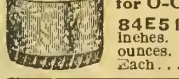
184E5128 - A fine finish for the eaves of the roof. Extra heavy, 26 gauge galvanized steel, 10 ft. lengths; allow 2 1/2 in. for joints. No slip-joints. Depth, front 5-in.; width, 3 1/2 in. Ship. wt., 10 lbs. Per 10-foot length. **\$1.25**

Hangers for O-G Trough



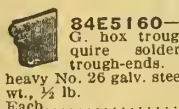
184E5166 - Length about 12 in.; width, 1 in. Heavy No. 16 gauge galvanized steel, punched for nails. Ship. wt., 3 1/2 lbs. Dozen. **77c**

Drop Outlet Tube for O-G Eave Trough



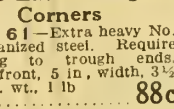
184E5157 - Diam. 3 inches. Ship. wt., 10 ounces. Each. **10c**

O-G Trough Ends



184E5160 - For O-G box trough. Require soldering to trough-ends. Extra heavy No. 26 galv. steel. Ship. wt., 1/2 lb. Each. **18c**

O-G Eave Trough Corners



184E5161 - Extra heavy No. 26 galvanized steel. Require soldering to trough ends. Depth, front, 5 in.; width, 3 1/2 in. Ship. wt., 1 lb. Each. **88c**

Corrugated Conductor Pipe

Galvanized steel, corrugated to allow for expansion and contraction and will not burst, even if full of ice. We suggest that you use 2-inch conductor pipe with 3 1/2 and 4-inch eave trough. Use 3-inch pipe for 5-inch trough and 4 or 5-inch pipe for 6-inch trough. Strongly made of best galvanized steel. Allow 2 1/2 inches on each length for joint. **Not malleable.**

Standard Gauge Conductor Pipe

184E5132 - This is the grade commonly used, but for long service we recommend the extra heavy grade.

| Size, in. | 2 | 3 | 4 | 5 |
|-----------------|-----|-----|-----|--------|
| Ship. wt., lbs. | 5 | 5 | 8 | 10 |
| Per 10-ft. | 54c | 66c | 89c | \$1.10 |

Extra Heavy 26 Gauge

184E5133 - Very durable conductor pipe.

| Size, inches | 2 | 3 | 4 | 5 |
|-----------------|-----|-----|--------|--------|
| Ship. wt., lbs. | 7 | 8 | 11 | 12 |
| Per 10-ft. | 72c | 80c | \$1.08 | \$1.30 |

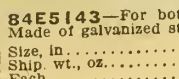
Galvanized Round Corrugated Elbows



For conductor pipe. Three different angles at same price. Made of galv. steel. (Give No. and Size.)

| Size, in. | 2 | 3 | 4 | 5 |
|----------------|-----|-----|-----|-----|
| Ship. wt., oz. | 6 | 8 | 11 | 20 |
| Each. | 16c | 20c | 30c | 70c |

Corrugated Shoes



184E5143 - For bottom end of conductor pipe. Made of galvanized steel. Give size.

| Size, in. | 2 | 3 | 4 | 5 |
|----------------|-----|-----|-----|-----|
| Ship. wt., oz. | 2 | 3 | 14 | 23 |
| Each. | 26c | 30c | 48c | 96c |

Wide Girth Slip Joint Eave Trough

Galvanized steel, Standard gauge, with slip joints. In 10-ft. lengths. Fits under the shingles near the eaves. Allow 2 1/2 in. on each length for the joint.

184E5124 - Right Hand.
184E5125 - Left Hand.

Width of girth, 14 in. Has roll 3 in. high. Flat surface, 9 in. wide. Ship. wt., 8 lbs. Price. **\$1.40**

Galvanized Slip Ends



Galvanized Spout Ends



184E5158 - 14 - 1 in. girth. Each. **28c**

184E5159 - Outlet, 2 in. Girth, 14 in. Each. **28c**

Conductor Pipe Cut-Off



184E5174 - Has safety spring to turn water from one pipe to another. Heavy galvanized steel.

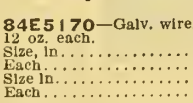
| Size | Ship. Wt. | Each |
|-------|------------|--------|
| 2 in. | 1 lb. | \$.55 |
| 3 in. | 1 1/2 lbs. | .58 |
| 4 in. | 2 lbs. | .80 |
| 5 in. | 2 1/2 lbs. | 1.48 |

Galvanized Funnel

184E5172 - Size means diameter of lower outlet. Heavy galvanized steel.

| Size | Ship. Wt. | Each |
|-------|-----------|------|
| 2 in. | 12 oz. | 24c |
| 3 in. | 18 oz. | 30c |
| 4 in. | 20 oz. | 42c |

Drop Outlet Strainer



184E5170 - Galv. wire. Ship. wt., 4 to 12 oz. each.

| Size, in. | 2 | 3 |
|-----------------|-----|-----|
| Each. | 10c | 13c |
| Ship. wt., lbs. | 4 | 5 |
| Each. | 20c | 22c |

Charcoal Rainwater Filter

Keeps your cistern clean. Removable top-strainer. Lower compartment to be filled with charcoal. A great purifier.



184E5180 - For 3-in. Conductor Pipe. Diam. 12 in.; height, 30 in. Requires 15 lbs. charcoal. Ship. wt., 20 lbs. Each. **\$7.35**

184E5181 - For 4-in. Conductor Pipe. Diam., 16 in.; height, 30 in. Requires 20 lbs. charcoal. Ship. wt., 24 1/2 lbs. Each. **\$9.35**

184E5183 - Charcoal, 20-lb. bag. Price. **65c**

184E5184 - Charcoal, 15-lb. bag. Price. **45c**

Galvanized Eave Trough

Made of best grade Galvanized Sheet Steel in 10 ft. lengths without a seam. One end of each length is made with a slip-joint which is quickly put together and requires no soldering. **Not Malleable.**

In two grades. Standard and Extra Heavy.

| Standard Gauge | | 184E5121 - Left Hd. | |
|---------------------------------|-------|---------------------|-------|
| Size, in. (inside width at top) | 3 1/2 | 4 | 5 |
| Ship. wt., per length, lbs. | 4 1/2 | 5 1/2 | 6 1/2 |
| Per 10-ft. length. | 44c | 54c | 63c |

Extra Heavy 26 Gauge Eave Trough

| 184E5122 - Right Hand. | | 184E5123 - Left Hd. | |
|---------------------------------|-------|---------------------|-------|
| Size, in. (inside width at top) | 3 1/2 | 4 | 5 |
| Ship. wt., per length, lbs. | 5 | 6 1/2 | 7 1/2 |
| 10-ft. length. | 63c | 72c | 84c |

Galvanized Eave Trough Corners

Extra Heavy 26 Gauge. Slip Joint



184E5148 - Inside Bead. 184E5149 - Outside Bead

| Size, in. | 3 1/2 | 4 | 5 | 6 |
|----------------|-------|-----|-----|-----|
| Ship. wt., oz. | 14 | 16 | 19 | 22 |
| Each. | 21c | 22c | 24c | 29c |

184E5156 - For slip-joint eave trough. Ship. wt., 10 to 15 oz. Galvanized steel.

| Trough | Outlet | Each |
|-----------|--------|------|
| 3 1/2 in. | 2 in. | 18c |
| 4 in. | 2 in. | 19c |
| 5 in. | 3 in. | 22c |
| 6 in. | 4 in. | 26c |

Galvanized Drop Outlet



Wire Eave Trough Hangers

184E5164 - For attaching eave trough to roof. Made of heavy galvanized wire.

| Size, in. | 3 1/2 | 4 | 5 |
|----------------|-------|-----|-----|
| Ship. wt., oz. | 19 | 20 | 22 |
| Each. | 25c | 27c | 30c |
| Doz. | 25c | 30c | 35c |

Conductor Pipe Hooks

184E5168 - Malleable iron, galvanized.

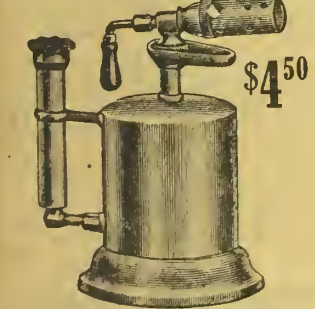
| Size | Ship. Wt. | Doz. | Dozen |
|-------|------------|------|-------|
| 2 in. | 2 lbs. | 5 | .58 |
| 3 in. | 2 1/2 lbs. | 5 | .75 |
| 4 in. | 3 lbs. | 5 | 1.10 |
| 5 in. | 4 1/2 lbs. | 5 | 1.50 |

Hinged Conductor Hooks

184E5169 - To fasten corrugated conductor pipe on wood buildings. Malleable iron, tinned. Ship. wt., 2 to 5 oz.

| Size, in. | 2 | 3 | 4 | 5 |
|-----------|-----|--------|--------|--------|
| Dozen. | 95c | \$1.20 | \$1.65 | \$2.50 |

Gasoline Blow Torch



Polished brass body; special bronze burner and improved air pump. Gives intensely hot blue flame. Easily regulated and indispensable for painting, burning, soldering, thawing out of pipes. Removable solder-iron holder.

184E5220 - Capacity, 1 pint. Hgt., 7 in. Ship. wt., 3 lbs. Each. **\$4.50**

184E5221 - Capacity, 1 quart. Hgt., 9 in. Ship. wt., 4 lbs. Each. **\$5.48**

Gasoline Auto Torch



184E5224 - Brass body, flat oval shape for use in narrow places. Powerful burner. Folding support on bottom prevents tipping over. Fitted with soldering iron holder. Pump is contained in the handle. Capacity, 1 pint; height over all, 9 in. Ship. wt., about 4 lbs. Each. **\$6.25**

Gasoline Torch and Sprayer



184E5222 - Burner gives hot flame. Separate nozzle throws fine stream of gasoline for cleaning machinery, destroying bed bugs, etc. Well made and finely finished. Capacity, 1 quart. Height 9 in. - Ship. wt., about 5 1/2 pounds. Each. **\$5.95**

Double Jet Gasoline Brazing Torch



184E5226 - Generates intense heat of about 3,000 degrees (Fahrenheit). Will produce large or a small, pointed flame. Fine for brazing, tempering, etc. Capable of doing work heretofore deemed impossible with a blow torch. Made of heavy brass and bronze. Pump is in handle. Capacity of tank, 1 quart. Height over all, 9 in. Ship. wt., about 4 lbs. with directions. Each. **\$8.65**

Gasoline Furnace



184E5232 - Produces a very hot flame. Has shield to hold melting pot. Melting pot not included. With heavy galvanized iron gasoline tank. Rubber pressure bulb. Small castings are malleable iron and brass. Burner is extra heavy copper pipe. Consumption, 1 pint of gasoline per hour. Height over all, 17 1/2 in. Diameter, 8 1/2 in. Ship. wt., abt. 10 lbs. Each. **\$6.75**



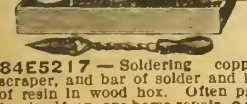
Combination Gasoline Torch
184E5234 - With steel gasoline tank painted. Removable hood. Burner can be swung in any position. Produces a hot flame. Will heat a pot of lead and a pair of soldering coppers at the same time. Burner is not affected by wind or weather. Well made and durable. Capacity, 3 quarts. Height over all, 12 in. Diameter, 8 1/2 in. Ship. wt., abt. 12 pounds. Each. **\$10.95**

Handy Soldering Set



184E5215 - Small soldering copper, scraper, box resin and piece of solder in paper box. Useful but has smaller capacity than the other sets. Ship. wt., 12 oz. Set. **35c**

Gem Soldering Set



184E5217 - Soldering copper, scraper, and bar of solder and box of resin in wood box. Often pays for itself on one home repair job. Ship. wt., 1 1/4 lbs. Set. **.98c**

Soldering Coppers

184E5208 - Square points, for inner use. Without wood handle. Ship. wts. are 1 to 3 lbs. above actual weights. Weights given are for one copper.

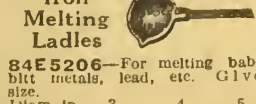
| Wt., ea., lbs. | 1 1/2 | 2 | 3 |
|----------------|-------|-----|-----|
| Each. | 32c | 38c | 53c |

Prices subject to Market Changes.

184E5209 - Wood handles.

Ship. wt., 2 oz. Each. **4c**
Dozen **42c**

Iron Melting Ladles



184E5206 - For melting babbitt metals, lead, etc. Give size.

| Diam. in. | 3 | 4 | 5 |
|----------------|-----|-------|-----|
| Ship. wt. lbs. | 1 | 1 1/2 | 3 |
| Each. | 22c | 35c | 48c |

Soldering Salts

One of the cleanest and most effective soldering fluxes made. Dissolved in water, and applied with brush. Causes solder to flow readily, and insures tight joints or seams. Non-corrosive, and will not injure hands. With directions.

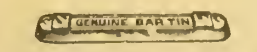
184E5210 - In 1/2-lb. bottle.

Ship. wt., 1 1/4 lbs. Each. **34c**

184E5211 - In 1-lb. bottle.

Ship. wt., 3 lbs. Each. **58c**

Bar Tin



184E5193 - Genuine new, pure tin. Bars weigh about 1 1/2 lbs. Ship. wt., 2 lbs. Each. **80c**

Wire Solder

184E5192 - Half and half tin and lead. Diameter about 1/8 in. Ship. wt., per lb., 18 oz. Price subject to change. Pound. **29c**

Tinners' Solder

184E5190 - Made of pure tin and lead. Guaranteed 50 per cent pure tin and 50 per cent pure lead. Bars weigh about 1 1/2 lbs. Ship. wt., 2 lbs. Price, Per bar (about 1 1/2 lbs.) subject to change. **39c**

Genuine Babbitt Metal

184E5202 - Pure tin, copper and antimony. For all classes of work. Weight, per bar, about 3 1/2 lbs. Ship. wt., 6 lbs. Pound. **45c**

No. 1 Babbitt Metal

184E5203 - For all light, fast running machinery, etc. Weight, per bar, about 6 lbs. Ship. wt., 7 lbs. Pound. **12c**

No. 3 Babbitt Metal

184E5204 - For pulleys, line shafting, etc. Wt. per bar, 5 1/2 lbs. Ship. wt., 6 1/2 lbs. Lb. **9c**

Bar Lead

184E5195 - Put up in bars of about 4 oz. Ship. wt., per pound, 18 oz. Pound. **9 1/2c**

Magnolia Babbitt Metal

184E5201 - Adapted to high and low speed machinery. Weight, per bar, about 6 1/2 lbs. Ship. wt., 8 lbs. Per pound. **29c**

Lakeside Babbitt Metal

184E5200 - Suitable for either light or heavy bearings - will not cut or heat journals. Weight, per bar, 5 lbs. Ship. wt., 7 lbs. Per pound. **23c**

FIG LEAD

184E5196 - Plumber's Pig Lead Bars, 6 1/2 lbs. Ship. wt., about 8 lbs. Pound. **8c**

Prices on Metals subject to market changes.

For Permanence, Use Metal Roofing and Siding

Corrugated Steel Roofing

Can be applied direct to studding or over sheathing or old shingles. It makes an effective, economical and fire resisting cover. Especially popular for barns, garages, grain sheds, and similar out buildings. Easy to apply. A hammer and tinner's shears are the only tools needed.

Made of open hearth sheet-steel. The 1½ inch and 2¼ inch corrugated sheets are 26 inches wide and both have a covering width of 24 inches when lapped one corrugation.

The painted roofing has a coat of red mineral paint (on both sides), but should receive an additional coat after being laid. Galvanized roofing should also be painted, as this adds to its durability. When ordering by the square, be sure to add enough for the side and laps, and give length of sheets wanted.

Prices quoted are for roofing only and do not include paint or nails. Order 1 pound mineral paint and one pound 1½-inch barbed nails for each square of roofing. Made in two thicknesses, heavy 26 gauge and Standard gauge.

A square of roofing equals 100 square feet of material. (Side and end laps not included.)

| Painted Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Ship. Wt. 6 Sq. | Price Per 100 Sq. Ft. |
|-------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------------|
| 2½-inch Corrugations | | | | | | | | | |
| 26 inches wide | | | | | | | | | |
| 284 E 4980—No. 28 gauge | | 42c | 50c | 58c | 66c | 75c | 84c | 68 lbs. | \$3.85 |
| Painted Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Ship. Wt. 6 Sq. | Price Per 100 Sq. Ft. |
| 1½-inch Corrugations | | | | | | | | | |
| 26 inches wide | | | | | | | | | |
| 284 E 4983—No. 28 gauge | | 43c | 52c | 60c | 68c | 78c | 86c | 68 lbs. | \$3.95 |
| Galvanized Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Ship. Wt. 6 Sq. | Price Per 100 Sq. Ft. |
| 2½-inch Corrugations | | | | | | | | | |
| 26 inches wide | | | | | | | | | |
| 284 E 4986—Stan. ga. | | 58c | 69c | 80c | \$.91 | \$1.04 | \$1.16 | 77 lbs. | \$5.30 |
| 284 E 4987—No. 26 ga. | | 65c | 78c | 91c | \$1.04 | \$1.17 | \$1.30 | 98 lbs. | \$5.95 |
| Galvanized Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Ship. Wt. 6 Sq. | Price Per 100 Sq. Ft. |
| 1½-inch Corrugations | | | | | | | | | |
| 26 inches wide | | | | | | | | | |
| 284 E 4989—Stan. ga. | | 59c | 70c | 81c | \$.92 | \$1.05 | \$1.18 | 77 lbs. | \$5.35 |
| 284 E 4990—No. 26 ga. | | 66c | 79c | 92c | \$1.05 | \$1.19 | \$1.32 | 98 lbs. | \$5.98 |

Shipped from Central Ohio or Iowa.

V-Crimped Steel Roofing

Made of open hearth sheet-steel, in sheets with a V-crip at both edges, or with crimp in center and on both edges. Can be laid over sheathing, old shingles or direct to rafters.

For any roof with a pitch of 2 inches or more to the foot. Sheets cover 24 inches after lapping one crimp over the other. Should be nailed through the wooden V-strips listed below. The roofing is painted red and should have an additional coat of mineral paint after being laid.

Galvanized roofing should also be painted as this adds to its durability.

Prices Quoted Below Are for Roofing only.

284 E 5005—Wood V-strips for V-Crimped Roofing. Requires 50 feet for a square of two-V roofing; 100 feet for three-V roofing. Price, per 100 lineal feet. **75c**

It requires 1 pound mineral paint, 50 lineal feet wood strips and 2 pounds 1½-inch nails for each square of 2 V-crimped roofing. One pound mineral paint 100 lineal feet strips and 2 pounds nails for each square 3 V-crimped roofing. Made in 2 thicknesses. Heavy 26-gauge and Standard gauge. Square of V-crimped roofing equals 100 square feet of material.

| Painted Two V-Crimp Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Ship. Wt. Sq | Price Per 100 Sq. Ft. | |
|-------------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|-----------------------------|-----------------------------|
| 284 E 4994—No. 28 gauge..... | | 40c | 47c | 55c | 62c | 71c | 79c | 69 lbs. | \$3.95 | |
| Painted Three V-Crimp Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Ship. Wt. Sq. | Price Per 100 Sq. Ft. | |
| 284 E 4997—No. 28 gauge..... | | 42c | 50c | 58c | 66c | 75c | 83c | 70 lbs. | \$4.15 | |
| Galvanized Two V-Crimp Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Per 12-ft. Sheet | Ship. Wt. Sq. | Price Per 100 Sq. Ft. |
| 284 E 5000—Stan. ga..... | | 54c | 64c | 75c | 85c | 96c | \$1.07 | \$1.28 | 78 lbs. | \$5.35 |
| Galvanized Three V-Crimp Roofing | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Per 9-ft. Sheet | Per 10-ft. Sheet | Per 12-ft. Sheet | Ship. Wt. Sq. | Price Per 100 Sq. Ft. |
| 284 E 5003—Stan. Ga..... | | 56c | 67c | 78c | 89c | \$1.00 | \$1.12 | \$1.34 | 79 lbs. | \$5.55 |

Shipped from Central Ohio or Iowa.

We recommend use of 26 gauge galvanized roofing. It doesn't cost any more to buy and will give double the wear of the lighter gauges or painted roofings

Sheet Zinc Roofing

Made of pure sheet zinc, resists fire, rust and weather and will last as long as the building. Zinc roofing has been extensively used in Europe for over one hundred years, and we are now able to supply you with this high quality, durable roofing material at a price but little in excess of a heavy galvanized steel roofing. It will outlast any steel or iron roofing, needs no paint, care or attention.

Corrugated Zinc Roofing

The 2½ in. corrugated roofing is 26 in. wide, and the 1½ corrugated is 25 in. wide, and both have a covering width of 24 in. where lapped at corrugation.

| 2½-in. Corrugations | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Ship. Wt. 6 Sq. | Price, 100 Sq. Ft. |
|---------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|
| 284 E 5016—No. 9 | | \$1.04 | \$1.25 | \$1.46 | \$1.66 | 73 lbs. | \$9.60 |
| 284 E 5017—No. 10 | | 1.16 | 1.39 | 1.62 | 1.85 | 81 lbs. | 10.70 |
| 1½-in. Corrugations | | Per 5-ft. Sheet | Per 6-ft. Sheet | Per 7-ft. Sheet | Per 8-ft. Sheet | Ship. Wt. 6 Sq. | Price, 100 Sq. Ft. |
| 284 E 5018—No. 9 | | \$1.05 | \$1.26 | \$1.47 | \$1.65 | 76 lbs. | \$10.00 |
| 284 E 5019—No. 10 | | 1.17 | 1.40 | 1.63 | 1.86 | 84 lbs. | 11.10 |

Shipped from Mill in Central Illinois. Prices subject to change

Galvanized Batten Strip

184 E 5030—Widely used for filling the cracks between boards on barns, etc., and on wallboard in place of wood strips. Makes barns and granaries weather and vermin proof.

Will not warp, split or draw away from boards. Width, 2 inches. Grooved in middle to expand and contract with boards. Made of galvanized sheet steel punched for nails. In bundles of 25 pieces. Prices subject to change.

| Length, ft. | 6 | 7 | 8 | 9 | 10 |
|-------------------|--------|--------|--------|--------|--------|
| Ship. wt., pounds | 25 | 32 | 35 | 40 | 45 |
| Bundles | \$2.70 | \$3.15 | \$3.60 | \$3.95 | \$4.50 |

Beaded Steel Ceilings and Sidings

Made of annealed sheet steel, standard gauge. Painted both sides with red mineral paint. With small beads or corrugations ¼-inch deep ½-inch wide and 3 inches from center to center, running lengthwise. Width of sheets, from center to center of the outside beads, 24 inches. When ordering allow for end lap. Only supplied in 8 foot sheets.

284 E 5011—Per 100 square feet

\$4.25

Price for 8 foot sheet. **.68**

Ship. wt., 69 lbs. per 100 sq. ft.

Shipped from Central Ohio or Iowa.

Corrugated Ridge Roll



Standard gauge, galv. steel. Lengths, 10 ft. To fit corrugated roofing. Size of girth, 12 in. Ship. wt., 7 lbs. per length.

184 E 5044—To fit 2½ in. corrugated. Per 10-ft. length. **72c**

184 E 5045—To fit 1½ in. corrugated. Per 10-ft. length. **72c**

Plain Ridge Roll



For any flat surface roofing, or for corrugated iron by using wood strips. Standard gauge, galvanized steel. Lengths, 10 ft. Wood strips not included.

| Number | Width In. | Ship. wt., lbs. | Each |
|------------|-----------|-----------------|------|
| 184 E 5040 | 2 | 4½ | 45c |
| 184 E 5041 | 2½ | 5 | 58c |
| 184 E 5042 | 3½ | 7½ | 75c |

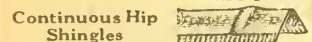


Ornamental Hip Shingles

One to each course.

84 E 5050—Galv. Size, 4x9 in. Ship. wt., 25 lbs. pack, 100 shingles. **\$1.48**

25c



Continuous Hip Shingles

184 E 5048—Standard 28-gauge galvanized steel. In 5 ft. lengths. Total width, 5 in. Ship. wt., about 2 lbs. per length. Per Length. **25c**

Galvanized Finial



84 E 5052—Stamped galvanized steel. Height 9 in. To finish off ends of ridge roll. Ship. wt., about 1 lb. **52c**



Galvanized Valley

Galvanized Sheet steel. Joined together. Width, 14 inches. Sold in full rolls. (Prices subject to market changes.)

Standard Number 28 Gauge

284 E 5070 25 feet 18 pounds \$2.00

50 feet 36 pounds 3.95

Extra Heavy Number 26 Gauge

284 E 5071 25 feet 20 pounds \$2.30

50 feet 40 pounds 4.55

Shipped from Mill in Central Ohio.

Painted Valley Tin

Made of good grade of tin plate in a continuous strip locked and soldered. In rolls of 25 feet and 50 feet. Painted on one side. (Prices subject to market changes.)

| Number | Width In. | Weight lbs. | 50-ft. Roll | 25-ft. Roll |
|------------|-----------|-------------|-------------|-------------|
| 284 E 5064 | 7 | 16 | \$2.15 | \$1.10 |
| 284 E 5065 | 14 | 32 | 4.25 | 2.15 |
| 284 E 5066 | 20 | 40 | 6.00 | 3.05 |
| 284 E 5067 | 28 | 60 | 8.50 | 4.35 |

Shipped from Mill in Central Ohio.

Roll Tin Roofing



484 E 5060—Convenient and easy to use. Best I. C. tin plate, (0.0125-inch thick) locked and soldered. Painted on under side. Width of strip, 20 inches. Length, 120 feet. Sold only in rolls containing 200 square feet. Shipping weight, 107 pounds. Roll (Subject to market changes) **\$12.95**

484 E 5025—Regular smooth sheet zinc. 26 Gauge. Sheets, 36x84 inches. Shipping weight, about 14 pounds. Half sheet, 36x42 inches. **\$1.18**

Full sheet, 36x84 inches. **2.35**

Prices subject to market changes.

All Prices on Sheet Metal Goods are Subject to Market Changes. We Will Always Give You the Benefit of Any Declines.

Fire Retarding Metal Ceiling

Metal Ceilings are Fire Proof, Dust Proof, Sanitary and Economical. Adapted for use in Churches, Halls, Lodge Rooms, Theatres, Hotels, Restaurants, and Private Homes, eliminating all danger of falling plaster. They cannot crack or fall off; last a life time, and a fresh coat of paint changes entire appearance.

Metal Ceilings are easy to apply. With each order we furnish complete directions and a regular detailed drawing, showing where each piece belongs. A small amount of fitting, such as around chimneys and corners must, of course, be done by the person doing the work. Prices include wood-brackets for Cornice and Over-Head Ceiling Nails. Furring Strips not included. Painted light gray, both sides.

In ordering Metal Ceilings, be sure to send a rough pen or pencil sketch of the Room, showing size, shape, and location of off-sets, this will enable us to arrange the pattern to fit the room properly. Metal Ceilings, carefully packed for shipment, weight, about 65 lbs. per 100 sq. ft. Shipped from Northern Illinois or Eastern Ohio.

284 E 5100—Steel Ceiling, center design plate only. Per 100 sq. feet. **\$4.95**

284 E 5101—Cornice moulding, as shown. Per foot. **.08**

284 E 5102—Mitres. (Corner sections). **.40**

All prices subject to change. Send sketch of your rooms and write us for complete estimate.

284 E 5104—Steel Ceiling, with Filler, Cornice and Mitres Complete per square of 100 sq. ft. **7.25**

To arrive at the total cost of 284 E 5104 ceiling design for a complete job—add 18 inches to the exact length and measurements of room before estimating square footage. This allows drop of Cornice on side wall in this design. All ceiling shipped with sufficient quantity of nails to erect. Send sketch of room showing all projections and write us for complete estimate. Ask for our Building Material catalog which contains various patterns to select from.



Galvanized Sheet Steel

284 E 5023—Smooth, galvanized sheets. Size, 30x96 inches. Prices subject to change.

Gauge. 24 26 28

Sheets, Bundle. 7 8 10

Ship. wt., per bundle lbs. 162 145 156

Bundle. \$9.55 \$8.70 \$9.98

Shipped from Central Ohio or Iowa.

Black Sheet Steel

284 E 5021—Smooth, black sheets. Size, 30x96 in. Prices subject to change.

Gauge Number. 24 26 28

Sheets, Bundle. 7 10 12

Shipping weight, per bundle, lbs. 140 150 150

Per bundle. \$7.10 \$7.65 \$7.80

Shipped from Central Ohio or Iowa.

Tin Shingles or Flashings

For repairing old roofs, around chimneys, etc.

34 E 5078—Size, 8x7 inches. Shipping weight, 100, 13 pounds. **\$1.50**

Per 100

34 E 5079—Size, 7x10 inches. Shipping weight, 100, 26 lbs. Per 100 **\$2.95**

Steel Pressed Brick Sidings



Steel Pressed Brick Sidings

Easy to apply! Makes a neat, strong fire-resisting cover. Made of annealed sheet

steel, U. S. standard gauge 28. The single brick measures 2½x8 ½ inches. When painted red, with the mortar lines striped in white it produces a very handsome effect.

In sheets 28x60 inches—11½ square feet to sheet. Shipping weight, per square, painted, 64 pounds. Galvanized, 73 pounds. Prices quoted do not include nails or extra paint.

284 E 5012—Painted. Per sheet. **48c**

284 E 5013—Galvanized. Per sheet. **69c**

284 E 5014—Painted. Per sheet. **48c**

284 E 5015—Galvanized. Per sheet. **69c**

Galvanized Building Corners

Galvanized sheet steel corners, have correct pitch. Punched for nails. Shipping weight, 10 pounds per 100 corners.

84 E 5034—Outside corners. For 4-inch siding, per 100. **\$1.48**

For 6-inch siding, per 100. **1.65**

84 E 5035—Inside corners. For 4-inch siding, per 100. **1.48**

For 6-inch siding, per 100. **1.65**

Barbed Roofing Nails

For Sheet Metal Roofing and Siding. Shipping weight, 5 pound package, 6 pounds. Prices subject to change.

84 E 5090—Length, ½-inch for siding. **52c**

84 E 5091—Length, 1-inch for roll and eap roofing. **5½c**

84 E 5092—Length, 1½ inches. For corrugated and V-crimped roofing. **5½c**

Package, 1 lb. **12c**

Package, 5 lbs. **55c**

Lead Roofing Washers

84 E 5008—To go under the nail head. Avoids leak around the nail hole. Recommended for corrugated roofing. About 325 washers in 1 pound and it requires ½ lb. for each square. (Prices subject to change.)

Package, 1 lb. **12c**

Package, 5 lbs. **55c**

Perfect Ventilation Means Healthy Stock



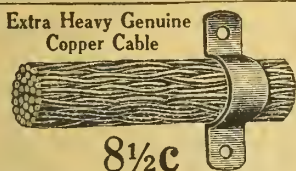
Arrow Vane Upright
84 E 4960 — Complete with 5-ft. copper tube and tee clamp for cable, silvered tip and galvanized brace. Arrow Vane and Ornamental Glass Ball — Opal, blue, ruby, silver or gold. Give color wanted. Ship. wt., about 10 lbs. **\$1.95**

"Peerless" Lightning Rod System
 Our extra heavy 32-wire copper cable, diameter 3/8 inches, carries safely most powerful discharge. Copper Clips and Copper Nails included with cable.
 Place uprights on highest points of building beside chimneys, on top of cupolas, gables, etc., not over 20 feet apart, at least three on every building.
 Tack with staple every few feet to serve as guide—then branch to everything of metal on or near roof, gutters, cornices, etc., then down on opposite end of building. Pull out string and measure, adding enough to make all hands full rounding (not sharp) and add 10 feet for each end grounded.

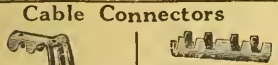
Plain Upright
 Complete upright with 5-foot copper tube and tee clamp for cable, silvered tip and galvanized brace.
84 E 4958 — With glass ball, opal, blue, ruby, silver or gold. Give color wanted. Ship. wt., about 10 lbs. **\$1.50**
84 E 4959 — Without ball. **1.30**



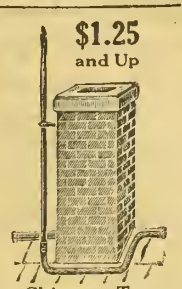
Animal Vane Upright
84 E 4962 — Complete with 5-foot copper tube and tee clamp for cable, silvered tip and galvanized brace. A gilt animal figure (horse, cow or rooster). State which. Give color of ornamental ball wanted. Ship. wt., about 10 lbs. **\$2.40**



Extra Heavy Genuine Copper Cable
8 1/2 c
184 E 4950 — Full size heavy 3/4-inch 32 strand cable. Shipping weight 25 pounds per 100 feet. Price per foot (subject to market changes) including clips and nails. **8 1/2 c**



Cable Connectors
84 E 4952 — Solid Brass Prongs hook over the main cable where desired and fasten by hammering shut. Branch cable clamped by a screw. Ship. wt., 3 oz. **12c**
84 E 4953 — Solid brass. Two screws clamp the two ends of cable to be joined. Shipping weight, about 2 ounces. **10c**



Chimney Top
84 E 4964 — Used where 5-ft. uprights are not high enough, to reach about 1 1/2 ft. over top. Copper tube with cable clamp and silvered tip. With eyebolt for attaching. Shipping weight, 5 pounds. Lgth. ft. 6 8 10 **\$1.25 \$1.35 \$1.95**

Standard Barn Cupola

284 E 5096 — Large attractive cupola heavy galvanized steel, all bolts and rivets galvanized. Holes on four sides for connecting lightning rod to a standard 3/8-inch galvanized iron rod in the center extending through top with an acorn top piece, large animal vane and ball on top. Shipped taken down and nested. Shipping weights, 90, 110 and 135 pounds.

| Size of Base | Dia. of Flue | Ht. Ft. | Each |
|--------------|--------------|---------|---------|
| 25x25 in. | 18 in. | 7 1/2 | \$17.50 |
| 30x29 in. | 20 in. | 8 1/2 | 19.95 |
| 36x36 in. | 24 in. | 9 1/2 | 22.50 |

Hog or Poultry House Cupola

284 E 5095 — Heavy galvanized sheet steel construction. Holes on four sides for connecting lightning rod to standard 3/8-inch galvanized iron rod in the center extending through the top with an acorn top piece, animal or rooster vane. Shipped taken down and nested. Shipping weights, 35, 50, 55 pounds.

| Size of Base | Dia. of Flue | Ht. Ft. | Each |
|-----------------|--------------|---------|---------|
| 19 1/4 x 19 1/4 | 12 in. | 5 1/2 | \$ 7.75 |
| 22 x 22 | 16 in. | 6 1/2 | 9.35 |
| 27 x 27 | 18 in. | 7 1/2 | 11.95 |

Large Barn Cupola

284 E 5097 — Galvanized steel rust-proof bolts and rivets. Edges are reinforced with 1/4-in. iron rods. Screened with galvanized bird-proof netting.
 Base molding cut in four corners, strongly braced and riveted. Holes on four sides for connecting lightning rod to a 3/8-inch galvanized iron rod in the center extending through the top with acorn top piece, suitable for barns from 30 to 60 feet long. For barns over 60 feet use two cupolas. Shipped taken down. Ship. wts., 180, 210 and 220 lbs.

| Dia. Flue In. | Base Moulding Size In. | Base Size In. | Ht. Feet | Each |
|---------------|------------------------|---------------|----------|---------|
| 24 | 47x47 | 37x37 | 11 1/2 | \$26.75 |
| 27 | 50x50 | 42x42 | 12 1/2 | 31.25 |
| 30 | 55x55 | 48x48 | 13 1/2 | 34.75 |

Chimney Cap

84 E 5093 — Protects the bricks and lasts as long as the chimney. Fastens securely with malleable corner clamps. Diameter of collar, 7 inches. Size of base, 12 1/2 x 16 1/2 inches. Clamps can be adjusted to fit 4x8, 4x12, 8x8, or 8x12 inch flues. Shipping weight, 15 pounds. **\$1.48**

Revolving Chimney Top

84 E 5094 — Produces a strong, regular draft under almost all conditions, and prevents down draft. The iron mountings are substantial, top is pivoted so as to revolve easily. Hood and vane are of heavy galvanized iron.
 Diameter.
 Base, inches... 6 7 8
 Shipping weight, pounds... 5 6 7
\$1.50 \$1.80 \$2.10



Bolt Clippers
184 E 7040 — Bolt Clippers; solid, tempered steel jaws. Adjustable to take up wear. Rubber humpers between the handles to avoid jar on the hands and wrists.

| Length, inches. | 12 | 18 | 24 | 30 | 36 |
|------------------|--------|--------|--------|--------|--------|
| Will Cut, inches | 1/2 | 3/4 | 5/8 | 7/8 | 1 1/2 |
| Ship. wt., lbs. | 1/2 | 3/4 | 5/8 | 7/8 | 1 1/2 |
| Each | \$1.25 | \$2.80 | \$3.75 | \$5.25 | \$6.75 |



Riveting Hammer
Lakeside Brand
84 E 1570 — Head and peen are correctly shaped for riveting. Forged steel head, tempered. Hickory handles. Shipping weight, 1 to 2 1/2 pounds.

| Size | 1 | 2 | 3 |
|-------------|-----|-----|-----|
| Head ounces | 7 | 8 | 10 |
| Each | 79c | 90c | 97c |



Tinners' Snips
84 E 2370 — For cutting sheet metal, wire, etc., straight or curved work. Blades are straight, with sharp points; hack is beveled to allow material to pass freely. Best forged steel. Size, 3 inch cut. Length 12 1/2 inches. Shipping weight, 2 pounds. **\$2.25**



Circular Cutting Shears
84 E 2362 — Tinners' snip for cutting sheet metal, rope, wire, etc. High-grade. Blades laid with tempered cutlery steel. Forged steel, japanned handles. Size cut, 3 in. Lgth. 12 in. Ship. wt., 2 lbs. **\$1.84**
 Size cut, 3 1/2 in. Length, 14 inches. Shipping wt., 4 lbs. **\$2.19**

Burglar and Fireproof Strong Steel Safes

Strong, Scientific Construction

The walls of our Safes are made of one continuous heavy steel plate, electrically welded to heavy steel front and back. This gives remarkable strength as well as attractive appearance, and eliminates separate angles and easily-broken rivets. Front doors are massive and strong. Heavy hinges, with nickel-tips. Secure bolts and tenon and groove arrangement hold the door securely even if hinges are knocked off. Non-pickable Yale Combination Lock on door, which practically eliminates the chance of any one not knowing the combination, from gaining entrance. Cabinet work and drawers are genuine oak, nicely finished.

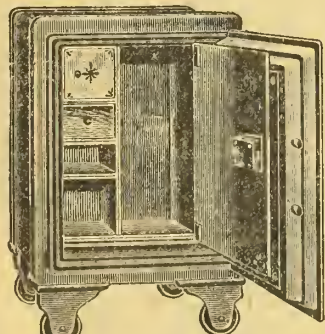
Fireproof Steel Safes

A special cement filling between the walls solidifies them and makes them fire-resisting. Many of our safes have gone through very severe fires with contents in perfect condition. Safes are shipped fresh and bright, direct from factory, and are finished and decorated after order is received. This usually causes a delay of 15 to 30 days, but shipment is made at the earliest possible moment. We guarantee delivery in perfect condition and we can furnish many testimonials on request.

NOTE: We put your name on safe in gold letters without extra charge when so ordered. (Our name does not appear.) Prices subject to change.

Diagram of Interior Arrangement of Safes

| The Yale Lock Offers Absolute Protection | | Diagram of Interior Arrangement of Safes | |
|--|----------------|--|----------------|
| Article Number | Dimensions | Article Number | Dimensions |
| 284 E 4912 | Outside Inside | 284 E 4920 | Outside Inside |
| 28 1/2 15 1/4 | 16 1/2 11 1/4 | 28 1/2 17 1/4 | 18 1/2 12 1/4 |
| 21 1/2 12 | 22 1/2 12 | 22 1/2 12 | 22 1/2 12 |
| Weight 350 pounds | | Weight 380 pounds | |
| Price without inner door \$36.75 | | Price without inner door \$41.50 | |
| Price with inner door 41.25 | | Price with inner door 45.50 | |

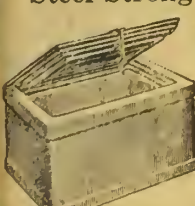


Single Door

Cement Filling Makes Them Fireproof

| Diagram of Interior Arrangement of Safes | | Diagram of Interior Arrangement of Safes | |
|--|----------------|--|----------------|
| Article Number | Dimensions | Article Number | Dimensions |
| 284 E 4922 | Outside Inside | 284 E 4923 | Outside Inside |
| 28 1/2 20 1/2 | 23 16 1/2 | 37 22 1/2 | 39 1/2 25 1/2 |
| 23 16 1/2 | 25 14 | 25 14 | 26 16 |
| Weight 705 pounds | | Weight 800 pounds | |
| Price without inner door \$54.25 | | Price without inner door \$61.00 | |
| Price with inner door 60.75 | | Price with inner door 69.50 | |

Protection at Low Cost Steel Strong Box

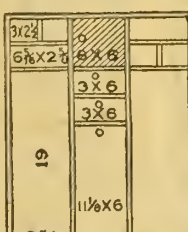


184 E 4930 — Excellent for safely keeping dead, money and valuables of all kinds. Gives a feeling of security worth much.

Heavy steel and iron. With double walls filled with cement. Painted black and nicely ornamented. Furnished with mortise cylinder lock and two keys. Dimensions: Outside, 13 1/2 x 9 1/2 x 8 1/2 inches high. Inside, 10 1/2 x 6 1/2 inches. Shipping weight, about 65 pounds. **\$8.25**

Shipped from Chicago.

Double Doors Inside and Out



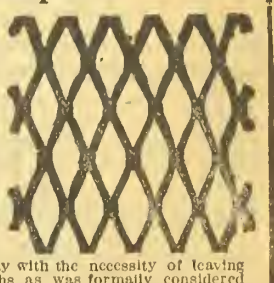
| Article Number | Dimensions |
|-------------------------|---------------------|
| 84 E 4925 | Outside Inside |
| 39 1/2 ins. 25 1/2 ins. | 26 ins. 19 1/2 ins. |
| 28 ins. 11 1/2 ins. | 1000 pounds |
| | \$109.00 |



| Article Number | Dimensions |
|-------------------------|---------------------|
| 84 E 4926 | Outside Inside |
| 55 1/2 ins. 38 ins. | 37 1/2 ins. 28 ins. |
| 32 1/2 ins. 17 1/2 ins. | 2270 pounds |
| | \$190.00 |

Metal Lath—Fireproof

Expanded Metal Lath for interior or exterior work; holds mortar or plaster secure. Made of 26 Gauge steel, painted. Holes 27 inches wide and 8 feet long, thus permitting the use of either 12 inch or 16 inch spacing of joint. Cracking or falling of plaster is usually due to the expansion or contraction of wood lath, which breaks the key or some of the plaster covering, permitting it to crack and fall. Metal lath absorbs no moisture from the first wet plaster hence does not swell then dry out and later on draw away from the plaster. Metal lath walls and ceilings dry out quickly and evenly and there is no moisture from the metal to stain the plaster, or no slightly alternating light and dark streaks such as are so often noticeable when wood lath is used. Furthermore, the decoration can be applied directly to the finished coat of plaster doing away with the necessity of leaving it in an unfinished state for weeks or even months as was formerly considered necessary. Metal lath is equally satisfactory for exterior plastering or stucco work, or for interior work, such as walls, ceilings, partitions, stairs and elevator enclosures. It is easily formed around openings, corners or angles, or bent to any desired shape without breaking the strands. One sheet contains 18 square feet — (Price subject to market changes.) **284 E 5080** — Price per sheet (27 inches x 86 inches) **\$.70**
 Packed 15 sheets in a bundle, shipping weight 68 pounds. Per bundle **\$ 9.85**
 Shipped from Eastern Ohio or Northern Illinois



Wire Sizes

HERE is a fence which will stand the test of time and which is giving perfect satisfaction on thousands of farms. The real cost of fencing is not the first cost. It is the cost per year of service. The expense for posts and labor is the same whether you stretch a light weight inferior fence, or a good substantial one like our Ajax. Our Heavy Ajax Fencing lasts longer than ordinary fencing and it will give you superior service.

The wire in our Ajax Fence is made of basic open hearth steel, is hard, tough, and springy; of a temper and quality best suited for making a high-grade, durable fence.

All wires are heavily galvanized with a good coating of zinc spelter, to prevent rust. The line wires are crimped, to allow for expansion or contraction due to changes in temperature. Supplied in full bales only. We cannot cut bales.

The Famous Ajax Knot

AJAX-The

Ajax Sheep and Hog Fence

Ajax Stock Fence

Fernwood Lawn Fence

284 E 5380—Heavy Number 9 wire pickets, spaced 3 inches apart and evenly corrugated.

The cable line wires are twisted tightly around each picket, and spaced about 6 inches apart, except at top, where strength is most needed, they are only 2 1/2 inches apart. Prices subject to change.

| Height, inches | 36 | 42 | 48 |
|-------------------------------|---------|-------|----------|
| Cables | 7 | 8 | 9 |
| Shipping weight, foot, pounds | 1 1/4 | 1 1/2 | 1 3/4 |
| Foot | 9 1/2 c | 11 c | 12 1/2 c |

Shipped from Factory in Northern Illinois.

Ridgewood Lawn Fence

284 E 5381—Heavy Number 9 wire pickets, spaced 2 1/2 inches apart at top. Close spacing of 1 1/2 inches at bottom keeps small chickens out. The cable line wires are spaced about 6 inches apart and twisted around each picket, making a strong, close mesh fence. Prices subject to change.

| Height, inches | 36 | 42 | 48 |
|-------------------------------|----------|-------|----------|
| Cables | 7 | 8 | 9 |
| Shipping weight, foot, pounds | 1 1/4 | 1 1/2 | 1 3/4 |
| Foot | 12 1/2 c | 15 c | 17 1/2 c |

Shipped from Factory in Northern Illinois.

Lawn Gates

284 E 5385—Wrought iron ornamental top, 1 1/2-inch tubular steel frame, double acting hinges and latch. Shipping weight, about 30 pounds.

| Height | Width | Each |
|--------|--------|--------|
| 36 in. | 39 in. | \$2.95 |
| 42 in. | 45 in. | \$3.00 |
| 48 in. | 51 in. | \$3.05 |
| 36 in. | 39 in. | \$3.05 |
| 42 in. | 45 in. | \$3.10 |
| 48 in. | 51 in. | \$3.15 |

Shipped from Factory in Northern Illinois.



Barbed Top and Bottom Wire

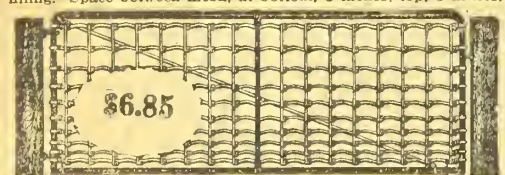
Easily raised at one end to clear snow drifts, or other obstructions. Heavy 1 1/2-inch tubular steel frame, strong fittings, hinges and latch. Heavy gauge galvanized wire fabric, with 6-inch stays. Space between mesh, bottom, 3 inches; top, 7 inches. Prices include latch and hinges for wood posts. Complete, ready to hang.

| Height | Width | Shipping Weight, Pounds | Painted Frame | Galv. Frame |
|--------|--------|-------------------------|---------------|-------------|
| 54 in. | 10 ft. | 80 | \$9.40 | \$10.90 |
| 54 in. | 12 ft. | 90 | 10.40 | 11.95 |
| 54 in. | 14 ft. | 100 | 10.90 | 12.80 |
| 54 in. | 16 ft. | 110 | 11.85 | 14.30 |

Shipped from Factory in Northern Illinois.

Steel Farm Gates

Tubular steel frame with an upright and a diagonal brace making it strong and rigid, heavy galvanized square mesh wire filling. Space between mesh, at bottom, 3 inches; top, 8 inches.



Heavy Farm Gate

Outside diameter of frame, 1 1/2 inches. Prices include latch and hinges for wood posts.

| Height | Width | Ship. Wt. | Number | Each |
|--------|--------|-----------|-------------|--------|
| 54 in. | 10 ft. | 65 lbs. | 284 E 5355A | \$6.85 |
| 54 in. | 12 ft. | 69 lbs. | 284 E 5355B | 7.50 |
| 54 in. | 14 ft. | 75 lbs. | 284 E 5355C | 8.75 |

Shipped from Factory in Northern Illinois.

Medium Farm Gate

Outside diameter of frame, 1 1/2 inches. Otherwise the same as above. Size of mesh, bottom, 2 1/2 inches; top, 7 1/2 inches.

20-In. 24c per rod

Height, 20 inches, with six line wires. Top and bottom wires, heavy Number 9 1/2 gauge, stays and intermediate line wires, Number 12 1/2 gauge. Galvanized tough steel wire. Spaced 3-inch mesh at the bottom, gradually widening to 5 inches at the top.

284 E 5250—Upright stays 12 inches apart. Shipping weight, per 100 rods, 450 pounds.

| Rods in Bale | 10 | 20 |
|--------------|--------|--------|
| Per Bale | \$2.40 | \$4.80 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$7.20 | \$9.60 |

284 E 5251—Upright stays 6 1/2 inches apart. Shipping weight, per 100 rods, 550 pounds.

| Rods in Bale | 10 | 20 |
|--------------|--------|---------|
| Per Bale | \$2.90 | \$5.80 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$8.70 | \$11.60 |

26-Inch 29 1/2c per rod

Height, 26 inches; seven line wires. Top and bottom wires, heavy Number 9 1/2 gauge; stays and intermediate line wires, Number 12 1/2 gauge. Galvanized tough steel wire. Spaced 3-inch mesh at bottom widening to 6-inch at top.

284 E 5252—Upright stays 12 inches apart. Shipping weight, per 100 rods, 550 pounds.

| Rods in Bale | 10 | 20 |
|--------------|--------|---------|
| Per Bale | \$2.95 | \$5.90 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$8.85 | \$11.80 |

284 E 5253—Upright stays 6 1/2 inches apart. Shipping weight, per 100 rods, 650 pounds.

| Rods in Bale | 10 | 20 |
|--------------|---------|---------|
| Per Bale | \$3.60 | \$7.20 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$10.80 | \$14.40 |

Shipped from Factories in Northern Illinois or Southeastern Iowa.

32-Inch 34 1/2c per rod

Height, 32 inches, with eight line wires. Top and bottom wires, Number 9 1/2 gauge; stays and intermediate line wires, Number 12 1/2 gauge. Galvanized tough steel wire. Spaced 3-inch mesh at the bottom, gradually widening to 6-inch at top.

284 E 5254—Upright stays 12 inches apart. Shipping weight, per 100 rods, 620 pounds.

| Rods in Bale | 10 | 20 |
|--------------|---------|---------|
| Per Bale | \$3.45 | \$6.90 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$10.35 | \$13.80 |

284 E 5255—Upright stays 6 1/2 inches apart. Shipping weight, per 100 rods, 765 pounds.

| Rods in Bale | 10 | 20 |
|--------------|---------|---------|
| Per Bale | \$4.20 | \$8.40 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$12.60 | \$16.80 |

42-Inch 38 1/2c per rod

Height, 42 inches; nine line wires. Top and bottom wires, Number 9 1/2 gauge; stays and intermediate line wires, Number 12 1/2 gauge. Galvanized tough steel wire. Spaced 3-inch mesh at bottom widening to 7-inch at top.

284 E 5260—Upright stays 12 inches apart. Shipping weight, per 100 rods, 700 pounds.

| Rods in Bale | 10 | 20 |
|--------------|---------|---------|
| Per Bale | \$3.85 | \$7.70 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$11.55 | \$15.40 |

284 E 5261—Upright stays 6 1/2 inches apart. Shipping weight, per 100 rods, 870 pounds.

| Rods in Bale | 10 | 20 |
|--------------|---------|---------|
| Per Bale | \$4.80 | \$9.60 |
| Rods in Bale | 30 | 40 |
| Per Bale | \$14.40 | \$19.20 |

Galvanized Poultry Netting

\$1.28 Up Standard Diamond Mesh Poultry Netting

Tough steel galvanized wire with heavy top and bottom wires. Will stretch evenly, stand rigidly and will not sag or bulge. Well galvanized and rust-resisting. Sold only in full bales of 150 lineal feet.

184 E 5325—2-inch Mesh. The standard size most commonly used. Made of Number 19 galvanized wire.

| Height, inches | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 60 | 72 |
|--------------------------------|--------|------|------|------|------|------|------|------|------|
| Shipping weight, bales, pounds | 13 | 18 | 24 | 29 | 36 | 40 | 46 | 60 | 70 |
| | \$1.23 | 1.95 | 2.48 | 2.95 | 3.25 | 3.95 | 4.50 | 5.60 | 6.50 |

184 E 5326—1 1/2-inch Mesh. A popular medium mesh. Made of Number 19 galvanized wire.

| Height, inches | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 60 | 72 |
|--------------------------------|--------|------|------|------|------|------|------|------|------|
| Shipping weight, bales, pounds | 16 | 21 | 25 | 35 | 40 | 45 | 55 | 69 | 80 |
| | \$1.95 | 2.35 | 3.60 | 4.20 | 4.90 | 5.75 | 6.55 | 8.20 | 9.30 |

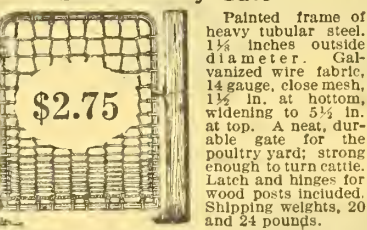
184 E 5327—1-inch Mesh. Will keep the smallest chicks safely enclosed. Made of Number 20 galvanized wire.

| Height, inches | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 60 | 72 |
|--------------------------------|--------|------|------|------|------|------|------|-------|-------|
| Shipping weight, bales, pounds | 18 | 25 | 35 | 38 | 48 | 58 | 60 | 72.25 | 79.25 |
| | \$2.70 | 3.88 | 4.95 | 5.90 | 6.75 | 7.25 | 7.95 | 9.25 | 9.25 |

Galvanized Square Mesh Heavy Gauge
184 E 5330—For window guards, fruit evaporation screens, cages, etc. Mesh means number of openings to inch. We furnish as follows: Number 2 mesh, 19 gauge wire; Number 3, 21 gauge; Number 4, 23 gauge; Number 5, 24 gauge. Be sure to state mesh wanted. Shipping weight, 60 to 88 lbs.

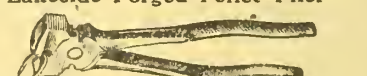
| No. of Mesh | Width in. | Rolls 100 Ft. | Rolls 50 Ft. | Run'g. Foot |
|-------------|-----------|---------------|--------------|-------------|
| 2 and 3 | 24 | \$1.75 | \$5.95 | 13c |
| 2 and 3 | 30 | 4.75 | 7.50 | 17c |
| 2 and 3 | 36 | 7.75 | 8.95 | 19c |
| 4 and 5 | 24 | 2.25 | 7.00 | 18c |
| 4 and 5 | 36 | 6.50 | 9.37 | 21c |

Steel Poultry Gate



| Article Number | Height in. | Width Feet | Price Each |
|----------------|------------|------------|------------|
| 184 E 5350 | 48 | 3 1/2 | \$2.75 |
| 184 E 5351 | 60 | 3 1/2 | 3.25 |

Lakeside Forged Fence Plier



84 E 2231—Combines staple puller, double wire cutter, double hammer, wire splicer, pinners and wrench. Forged steel, well finished. Length, 10 inches. Shipping weight, 2 1/2 pounds. \$1.25

Medium Farm Gate

| Height | Width | Ship. Wt. | Number | Each |
|--------|--------|-----------|------------|--------|
| 54 in. | 10 ft. | 55 lbs. | 284 E 5357 | \$4.95 |
| 54 in. | 12 ft. | 58 lbs. | 284 E 5358 | 6.25 |

Shipped from Factory in Northern Illinois.

Climax Economy Poultry Fence

184 E 5320—Closer mesh at bottom than any other square mesh fence, and will turn small chicks. Heavier than netting; needs no top and bottom boards to support it.

Made of No. 17 gauge galvanized wire fastened with secure tie; top and bottom wires are heavy No. 14 gauge. Close 1 1/2 in. bottom meshes, widening to 6 in. at the top on 72-in. size. Closed upright stays only 4 in. apart. 10 and 20-rod bales.

| Height in. | 36 | 48 | 60 | 72 |
|----------------------|-----|-----|-----|-----|
| Line Wires | 20 | 23 | 25 | 27 |
| Ship. wt., rod, lbs. | 5 | 6 | 7 | 8 |
| Roll | 45c | 55c | 65c | 76c |

Galvanized Barbed Wire
A perfect wire. Thoroughly annealed. We recommend the two-point single twist barbs. Much neater than four-point barbs, easier to handle and just as effective. Two strands regular Number 12 1/2 wire. Shipping weight, rod, about 1 pound. Cattle wire has barbs about 5 inches apart. Hog wire has barbs about 3 inches apart. Prices subject to market changes.

| Standard Galvanized Two-point Barbed Wire | Each |
|--|--------|
| 284 E 5420—Cattle wire. Reel of 100 pounds | \$4.75 |
| 284 E 5421—Cattle wire. Spool of 80 rods | 3.70 |
| 284 E 5422—Hog wire. Reel of 100 pounds | 4.75 |
| 284 E 5423—Hog wire. Spool of 80 rods | 3.90 |

Standard Galvanized Four-point Barbed Wire
284 E 5426—Cattle wire. Spool of 80 rods \$4.15
284 E 5427—Hog wire. Spool of 80 rods \$4.60

Shipped from Factories in Northern Illinois or Southeastern Iowa with Ajax Fencing.

"Eclipse" 80 Rod Barbed Wire

A medium weight fence wire, preferred by many to the regular standard barbed wire. Easy to handle. Tough and elastic cable wires. Number 14 gauge. Put on spools containing 80 rods. Shipping weight, spool 56 to 58 pounds. Prices subject to market changes.

| 284 E 5440—Galvanized Hog Wire | Each |
|-----------------------------------|--------|
| Spool | \$3.25 |
| 284 E 5441—Galvanized Cattle Wire | Each |
| Spool | 2.95 |

Shipped from Factory in Central Indiana.

Duro Galvanized Wire Screen

Guaranteed For Three Years

Note the Special Close Weave No. 14 Mesh

Screen the house with our "Duro" electro-galvanized wire screen, and protect your family from the disease germs carried by flies. This is a rust-resisting special wire guaranteed by us for three years. Extra closely woven, 14 wires to the inch. (All galvanized wire screen that may prove defective within three years of purchase date, in regions exposed to salt sea atmosphere. Store your screens in a dry place in a coat of screen paint every spring will give further protection and many years service.)

| Width in. | Ship. Wt. 50 Ft. Roll | 484 E 5494 Per 50 Ft. Roll | 484 E 5495 Per 100 Ft. Roll | 484 E 5496 Per 150 Ft. Roll |
|-----------|-----------------------|----------------------------|-----------------------------|-----------------------------|
| 24 | 12 1/2 lbs. | \$3.60 | 23 1/2 lbs. | \$7.15 |
| 26 | 12 1/2 lbs. | 4.95 | 25 lbs. | 7.80 |
| 28 | 13 1/2 lbs. | 4.25 | 27 1/2 lbs. | 8.40 |
| 30 | 14 1/2 lbs. | 4.55 | 29 1/2 lbs. | 9.00 |
| 32 | 16 lbs. | 4.85 | 31 1/2 lbs. | 9.60 |
| 34 | 16 1/2 lbs. | 5.15 | 33 1/2 lbs. | 10.25 |
| 36 | 17 1/2 lbs. | 5.45 | 34 1/2 lbs. | 10.85 |
| 42 | 20 1/2 lbs. | 6.35 | 42 1/2 lbs. | 12.80 |
| 48 | 24 lbs. | 7.25 | 47 lbs. | 14.40 |

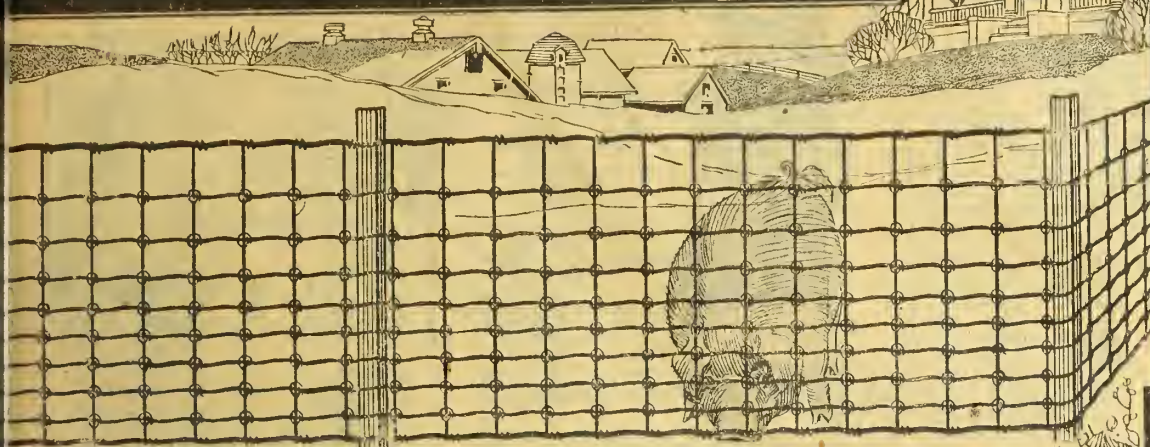
Standard Black Painted Wire Screen

Thoroughly coated with high grade black paint, which will crack or peel off. Standard weave, 12 wires to the inch. stretch evenly. Sold in rolls 50 and 100 feet long, or in any length, by the foot.

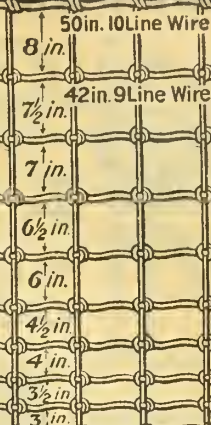
| Width in. | Ship. Wt. 50 Ft. Roll | 484 E 5490 Per 50 Ft. Roll | 484 E 5491 Per 100 Ft. Roll | 484 E 5492 Per 150 Ft. Roll |
|-----------|-----------------------|----------------------------|-----------------------------|-----------------------------|
| 24 | 19 1/2 | \$2.50 | \$4.90 | 5 1/2 |
| 26 | 21 1/2 | 2.70 | 5.30 | 6 1/2 |
| 28 | 23 1/2 | 2.90 | 5.70 | 7 1/2 |
| 30 | 25 1/2 | 3.10 | 6.15 | 8 1/2 |
| 32 | 27 1/2 | 3.30 | 6.55 | 9 1/2 |
| 34 | 29 1/2 | 3.50 | 6.95 | 10 1/2 |
| 36 | 31 1/2 | 3.70 | 7.35 | 11 1/2 |

For complete line of screen doors, and window screens, see our Spring Catalog

Mark of Strength



Spacing on Ajax Fence



50-Inch Stock Fence

Top and bottom wires, Number 9 1/2 gauge; stays and intermediate line wires, Number 4 gauge. Galvanized tough wire. Spaced 3 inches mesh at top, widening to 8 inches at bottom.

4 E 5262—Upright stays 16 inches apart. Shipping weight, 100 rods, 775 pounds.
Rods in bale..... 10 20
Per bale..... \$4.30 \$8.60
Rods in bale..... 30 40
Per bale..... \$12.90 \$17.20

4 E 5263—Upright stays 16 inches apart. Shipping weight, per 100 rods, 970 pounds.
Rods in bale..... 10 20
Per bale..... \$5.30 \$10.60
Rods in bale..... 30 40
Per bale..... \$15.90 \$21.20

63c per rod 46 and 58-In. Stock and Poultry Fence 47c per rod

Strong enough for stock and with close meshes that will turn small chickens. Upright stays 8 1/2 inches apart. Top and bottom wires Number 9 1/2 gauge. Stays and intermediate line wires Number 12 1/2 gauge. Spaced 1 1/2 in. at bottom, widening to 8 in. at top.

284 E 5270—Height, 46 inches, with 14 line wires. Shipping weight, per rod, 11 1/2 pounds.
Rods in bale..... 10 20
Per bale..... \$6.30 \$12.60
Rods in bale..... 30 40
Per bale..... \$18.90 \$25.20

284 E 5271—Height, 58 inches, with 16 line wires. Shipping weight, per rod, 12 1/2 pounds.
Rods in bale..... 10 20
Per bale..... \$7.30 \$14.60
Rods in bale..... 30 40
Per bale..... \$21.90 \$28.20

Our best poultry fence, made the same as our regular Ajax fence but somewhat lighter. Top and bottom wires No. 11 gauge, stays and intermediate line wires No. 14.

284 E 5275—Height, 46 inches, 14 line wires, stays 8 inches apart. Bottom mesh 1 1/2 in.; top, 8 in. Ship. wt., 100 rods, 750 lbs.
Rods in bale..... 5 10
Per bale..... \$2.35 \$4.70
Rods in bale..... 20 30
Per bale..... \$9.40 \$14.10

284 E 5276—Height, 58 inches, 16 line wires, stays 8 inches apart. Ship. wt., per 100 rods, 875 pounds.
Rods in bale..... 5 10
Per bale..... \$2.75 \$5.50
Rods in bale..... 20 30
Per bale..... \$11.00 \$16.50

Extra Heavy Stock Fence

Made entirely of Number 9 1/2 ext. heavy galvanized wire (about 3/32 inch thick). One of the strongest fences made. 20, 30 and 40-rod bales only.

284 E 5280—Height, 45 inches, stays 16 inches apart. Bottom mesh 5 inches, top 8 inches. Has 8 line wires. Weight, 100 rods, 1050 pounds. Rod..... **59 1/2 c**
284 E 5281—Height, 50 in. stays 12 inches apart. Bottom mesh 3 inches, top 8 inches. Has 10 line wires. Weight, 100 rods, 1400 pounds. Per rod..... **79 1/2 c**
284 E 5282—Height, 50 in. stays 8 inches apart. Bottom mesh 3 inches, top 8 inches. Has 10 line wires. Weight, 100 rods, 1700 pounds. Rod..... **98 c**

Shipped only from Northern Illinois.

39c

Steel Fence Posts

Can be easily moved from field to field

Heavy all steel fence posts, made of angle steel, size 1 1/2 x 1 1/2 x 1/2 inches thick. Total length, 7 feet.

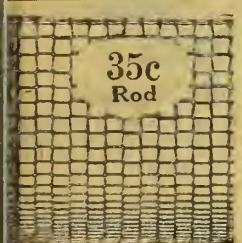
They can be quickly driven into any kind of soil, and can be taken out just as quickly when you relay your fields or pastures. No staples are required, as there are hooks or prongs punched out of the steel upon which the wire rests.

These hooks are close together so as to take woven wire fencing of any size mesh, and suitable for fencing any height up to 60 inches.

Painted with weather-resisting black paint. Approximate weight, each 9 pounds.

284 E 5410..... **39c**

Shipped from Factory in Northern Illinois with Ajax Fencing.



35c Rod

Perfect Poultry Fence

Open-hearth steel wire, heavily galvanized. Continuous stays 4 1/2 inches apart, firmly interlocked with line wires so they will not spread. No top or baseboard necessary. No buckling between posts.

Top and bottom wires, Number 14; line and stay wires, Number 18. Spaced 1 1/2 inches apart at bottom, widening to 4 1/2 inches at top. In 10, 15 or 20-rod bales. Prices subject to market changes.

284 E 5300—Height, 48 inches. With 20 line wires. Shipping weight, rod, 3 1/2 pounds. Rod..... **35 c**
284 E 5301—Height, 60 inches. With 23 line wires. Shipping weight, rod, 4 1/2 pounds. Rod..... **45 c**
284 E 5302—Height, 72 inches. With 26 line wires. Shipping weight, rod, 5 pounds. Rod..... **55 c**

Shipped from Factory in Central Indiana.

Smooth Fence Wire

Open-hearth steel wire, the best for this purpose. Prices given are for 100-pound bundles. We do not break bundles. All prices are subject to market changes. (Give size)

| Gauge No. | Feet in 100 lbs. | 284 E 5450 Plain | 284 E 5451 Galvanized |
|-----------|------------------|------------------|-----------------------|
| 8 | 1,425 | \$3.95 | \$4.65 |
| 9 | 1,725 | 4.05 | 4.75 |
| 10 | 2,075 | 4.05 | 4.75 |
| 12 | 3,425 | 4.20 | 4.90 |
| 14 | 5,900 | 4.45 | 5.15 |

Shipped from Factory in Central Indiana

Standard Poultry Fence

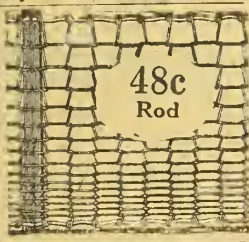
Top and bottom wires, Number 10 spring steel wire. Line wires and stays, Number 14. Height of lower meshes 1 1/2 inches, 5 1/2 inches at top. Stay wires, 6 inches apart. In bales 10, 15 or 20 rods.

34 E 5304—Height, 36 inches. Fifteen line wires. Shipping weight, rod, 7 1/4 pounds. Rod..... **48 c**

34 E 5305—Height, 48 inches. Seventeen line wires. Shipping weight, rod, 8 3/4 pounds. Rod..... **58 c**

34 E 5306—Height, 60 inches. Nineteen line wires. Shipping weight, rod, 9 1/4 pounds. Rod..... **63 c**

Shipped from Factory in Central Indiana.



48c Rod

Barbed Bottom Hog Fence

With two-point barbed bottom wires. Galvanized tough open hearth steel wires. Stay wires 6 inches apart, height of two bottom meshes 3 inches, widening to 6 inches at top. Bales of 20 and 40 rods in two grades—standard and medium weights.

Standard Grade
Standard grade with Number 10 gauge top wire, and Number 13 gauge line and stay wires.
284 E 5310—Height, 26 inches. Shipping weight, 100 rods, 525 pounds. Per rod..... **32 c**
284 E 5311—Height, 32 inches. Shipping weight, 100 rods, 600 pounds. Per rod..... **37 c**

Medium Grade
Medium grade made same as above with top wires Number 11, stays and line wires Number 14.
284 E 5312—Height, 26 inches. Shipping weight, 100 rods, 425 pounds. Per rod..... **25 c**
284 E 5313—Height, 32 inches. Shipping weight, 100 rods, 500 pounds. Per rod..... **29 c**

Shipped from Factory in Central Indiana.

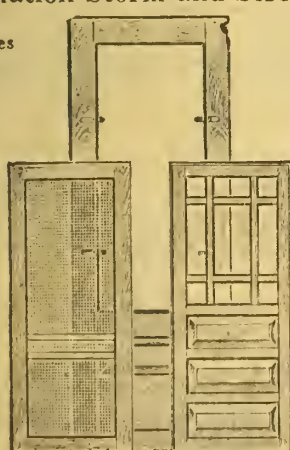
These two wires not included

Combination Storm and Screen Door

ne Door Frame Serves the Purpose of Two Door Frames

\$8.75

No need to do the troublesome work of moving the screen or in the fall and attaching the storm door. This combination does away with all the work of putting unnecessary new holes in the screen twice a year—because it is the "permanent" door. By simply taking out the movable screen and fitting in the sash you have changed it from a screen to a storm door. Held firmly in place by a patent metal lock, quickly and easily adapted with a screw-driver.



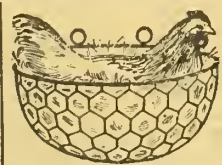
Price for Complete Combination

| Art. No. | Size of Door | Ship. wt., about, lbs. | Price Complete | Art. No. | Size of Door | Ship. wt., about, lbs. | Price Complete |
|-----------|--------------|------------------------|----------------|-----------|---------------|------------------------|----------------|
| 84 E 5520 | 2 ft. 8 in. | x | | 84 E 5523 | 2 ft. 10 in. | x | |
| | 6 ft. 8 in. | 60 | \$8.75 | | 7 ft. | 70 | \$ 9.95 |
| 84 E 5521 | 2 ft. 10 in. | x | | 84 E 5524 | 3 ft. x 7 ft. | 75 | 10.50 |
| | 6 ft. 10 in. | 65 | 9.75 | | | | |

Costs little—is long lasting, the door once adjusted stays fitted and doesn't have to be planed down or readjusted twice a year. Removable panels fit flush with door frame. Either door for you in a moment or won't.

Door frame is made of selected white pine 1 1/2 inches thick, sanded and smoothed.

No amount of jarring can loosen the screen or storm sash. Just as solid as it built in. Plain white finish. Screen panel wired with fine 14 mesh galvanized wire cloth. Storm sash glazed with strong clear glass.



Wire Hens' Nest

184 E 9112—Large and Roomy. Diameter, 15 inches. Fastened to wall on boards. Made of galvanized wire, close twisted mesh, japanned black.

Shipping weight per dozen, 7 lbs. **98c**
Sale Price, Dozen.....

Storm or Window Screen Hangers

84 E 3782—Wrought steel japanned. With screws. Shipping weight, 2 1/2 pounds.
Per set (1 window)..... **\$ 1.10**
Dozen Sets (12 windows)..... **1.15**

Post Mails

484 E 5650—Cast iron mail, with taper eye. Handle cannot slip off. Complete with 3-foot hickory handles. Give weight. Ship. wt. is same as average weight. Av. wt. lbs. 10 13 18
..... **75c 98c \$1.35**

Post-Hole Tamper and Digger

184 E 5654—Forged steel with tempered ends. For setting fence posts, cutting roots, prying out rocks. One end has sharpened blade. Length, about 3 1/2 feet; width of blade, 3 in. Shipping weight, 18 lbs. **\$1.40**

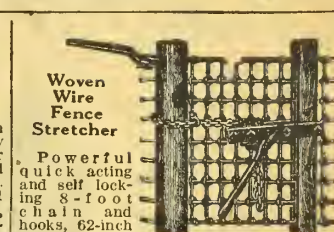
Post-Maul Handles

484 E 5651—Hickory handles, turned. Length 36 inches. Ship. wt., 1 1/4 lbs. **25c**



Wire Grip

84 E 5476—Can be attached to any wire-stretcher. For smooth or barbed wire. Heavy cast iron. Shipping weight, 1 pound. **39c**



Woven Wire Fence Stretcher

Powerful quick acting and self locking 8-foot chain and hooks, 62-inch wood clamp

bars, and combination crank and finishing tool for stretching near the last post.

184 E 5482—Single stretcher. Shipping weight, 38 pounds. **\$5.75**

184 E 5483—Double stretcher, with two chains, tighteners and crank. Shipping weight, 70 pounds. **\$9.95**

Tackle Block Wire Stretcher

84 E 5470—For smooth or barbed wire, and woven wire fencing. Self-locking at any point. Malleable iron. Makes a good tackle block or rope hoist, lifting 500 pounds. Complete, with about 15 feet of 3/4-inch rope. Shipping weight, 5 pounds. **98c**

Fence Finishing Tool

84 E 5478—Easily stretches line wires around last post, which is always a difficult part of fence to staple. Made of malleable iron. Japanned finish. Length, 19 1/2 inches. Shipping weight, 3 pounds. **95c**

Eureka Digger

184 E 5630—Eureka pattern. With split hardwood handles. Cast steel tempered 9-inch blades. With strong malleable iron shanks. Length, 5 feet. Average shipping weight, 8 1/2 pounds. **\$1.48**

Atlas Digger

184 E 5633—The arrangement of the hinges causes blades to close without opening the handles far. Length, 59 inches. Average shipping weight, 10 pounds. **\$1.75**

Vaughan's Post-Hole Auger

Post-hole Augers with solid steel blades. Stems made of wrought steel pipe. Total length about 44 in. Hardwood top cross handle. Ship. wt., 6 lbs. **\$1.35**

84 E 5640—Size 8 in. **\$1.35**
84 E 5641—Size, 9 in. **\$1.45**

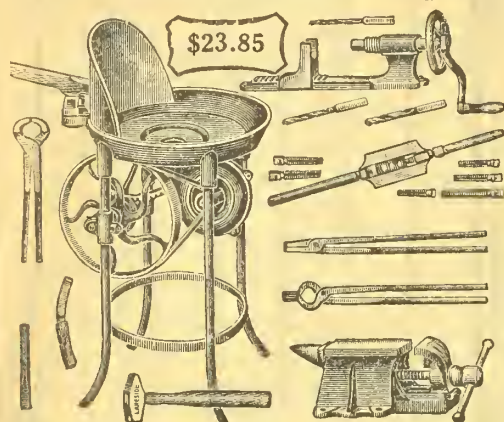
Post Hole and Well Auger

Shallow wells are bored by unscrewing handle and adding bore pipe to iron pipe shank. High carbon steel blades. Strong malleable iron cross piece. Total length, 4 to 6 feet. Shipping weight, 6 1/2 to 10 1/2 pounds. **\$1.75**

184 E 5636—4 inches..... **\$1.75**
184 E 5637—6 in..... **\$1.85**
184 E 5638—8 in..... **1.95**
184 E 5639—9 in..... **2.25**

Save a Trip to Town—Repair it Yourself

Climax Farm Repair Outfit



\$23.85

With this outfit you can do most of the repair work around your farm or ranch, can keep your wagons and implements in good running order and can shoe your horses. Outfit consists of the following tools: 1 Handy Lever Forge with 18-inch round hearth and 8-in. fan fitted with heavy pipe legs braced at the bottom and gives a strong blast; 1 Combination Anvil and Vise with jaws for holding pipe, chilled face and jaws, will open 5 inches, width of jaws, 3 in.; 1 Blacksmiths' Horizontal Drill, has solid standard, length 26 in.,

with chuck for holding square shank stock drills; 3 Twist Drills, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ inch, for boring metal or wood; 1 Set Stock and Dies, cutting $\frac{1}{16}$ to $\frac{1}{4}$, 10, 12 and 16 threads, complete with 3 sets of dies and taper taps; 1 pair Blacksmiths' Tongs; 1 Farriers' Knife; 1 pair Bolt Tongs length 20 inches, for $\frac{1}{2}$ -inch round iron; 1 Blacksmiths' Hammer wt., 2 lbs; 1 pair Blacksmiths' Pincers, length 14 inches; 1 Cold Chisel, steel $\frac{1}{4}$ in.

Shipping weight of complete set, about 150 lbs.

184E6460—Outfit complete. **\$23.85**

Duck Nest Tuyere Iron

484E6574—Single Duck nest pattern. Cast iron. Without blast regulator. Total length, about 16 in. Total width, about 12 in. Ht., about 3 $\frac{1}{2}$ in. Ship wt., 13 pounds. Each. **\$1.05**

Sutton Tuyere Iron

484E6578—Tuyere Iron and Fire Bowl Cast Iron. Large and heavy. Insures clean, bright fire. Will give satisfaction. Size of fire bowl, 13 $\frac{1}{2}$ x 11 $\frac{1}{2}$ in. Ship. wt., 42 lbs. Each. **\$4.95**

Norton Tuyere Iron

184E6580—Made of heavy cast iron. The blast is regulated by turning the large rod. Ashes removed by pulling small rod. Levers and spring easily changed to right or left-hand side. Length, 28 in. Width 13 $\frac{1}{2}$ in. Height, 6 $\frac{1}{2}$ in. Ship. wt., 27 lbs. Each. **\$3.10**

Stoddard Tire Upsetter

One man can operate it. Will not kink tire. Short lever included.

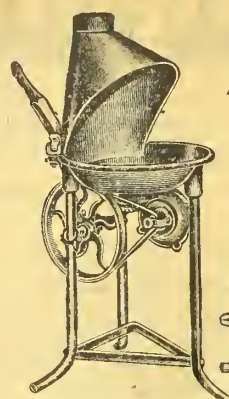
184E6595—Size 2. Will upset any tire up to 4 in. wide. Length 15 in. Width 15 in. Height, 18 in. Ship. wt., 245 lbs. Each. **\$22.45**

184E6596—Size 3. Special 4-in. machine. Loose jaws; will adjust for large and small circles, for upsetting axles from 1 in. to 1 $\frac{1}{2}$ in. sq. Length, 24 in. Width 19 in. Height, 20 $\frac{1}{2}$ in. Ship. wt., 300 lbs. Each. **\$28.30**

Geared Tire Bender

184E6604—Bends a 4 $\frac{1}{2}$ -in. tire or smaller to a circle 24 in. in diam. or larger. Length, about 25 inches. Width, about 8 inches. Height about 12 inches. Ship. wt., 100 lbs. Each. **\$11.90**

184E6605—Bends a 6-inch tire or smaller to a circle 24 inches in diameter or larger. Length, about 25 inches. Width, about 9 inches. Height, 12 inches. Ship. wt., 115 lbs. Each. **\$12.95**

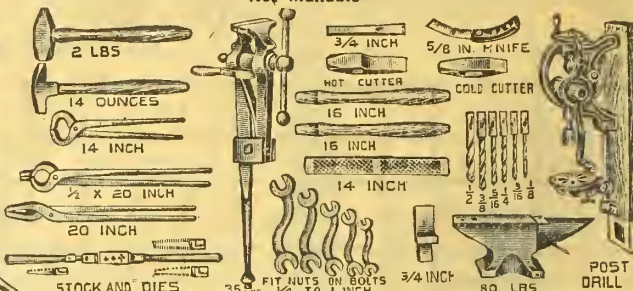


Standard, first quality tools from our regular stock. Will enable you to do your own blacksmithing and repairing and will prove of much value on any farm or ranch. Outfit consists of:

- 1 Lever Forge, with half hood, diameter of hearth action, 22 in., height, 54 in., with a perfect lever ratchet action; Fan case, 9 in.
- 1 Cast Anvil, steel face. Wt., about 80 lbs.
- 1 Champion Post Drill, 12-in. circle; self-feed.
- 6 T & T Drills, with $\frac{1}{2}$ -in. round shank; one each $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 and $\frac{1}{2}$ in.
- 1 Blacksmiths' Vise. Wt., about 35 lbs.
- 1 Blacksmiths' Stock and Dies, cutting $\frac{1}{16}$ to $\frac{1}{4}$ in., right hand, 10, 12 and 16 thread, with 3 sets of dies and 3 taper taps.

Blacksmiths' Outfit \$59.50

An Ideal Outfit for the Farm or Blacksmith Shop Not Mailable



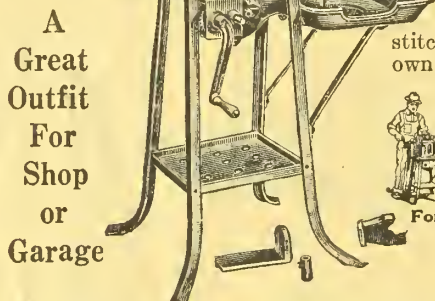
- 1 Farriers' Knife.
- 1 Hand Hammer, polished. Wt., about 2 lbs.
- 1 Pincers, 14 in.
- 1 Tongs, length, 20 in.
- 1 Hardie, to fit anvil.
- 1 Hot Cutter, 1 $\frac{1}{2}$ in. with handle.
- 1 Cold Cutter, 1 $\frac{1}{2}$ in. with handle.
- 1 $\frac{3}{4}$ -in. hand cold chisel.
- 1 $\frac{1}{2}$ -in. horse rasp.
- 5 Double end wrenches, take nuts from $\frac{1}{4}$ to 1 inch.
- 1 $\frac{1}{2}$ -in. Bolt Tongs, 20 in.
- 1-in. Farriers' hammer. Wt., about 14 oz.

184E6462—Outfit complete as illustrated and described. Ship. wt., complete about 325 lbs. Price. **\$59.50**

Lakeside Combination Repair Outfit

A fine, complete and compact combination of tools which will pay for itself in a short time.

Makes it easy to take the necessary stitch in time. Do your own repairing.



Blacksmith Forge with heavy cast iron pan. Size, 12x14 inches by 2 $\frac{1}{2}$ inches. A deep and easy acting blower.

Drill Attachment with three speeds 1 to 1, 1 to 4, and 1 to 14, with chuck for $\frac{1}{2}$ in. round shank drills. Drills to center of 10 in. circle. The Gear Case is removable and interchanges from the forge to the drill. All the gears are wide-faced, accurately cut and machined. The entire outfit is mounted on a heavy angle steel stand, well braced and rigid. Height to top of vise, 3 ft. 2 in. Height to top of forge pan, 1 ft. 11 in. Occupies floor space of 12x16 inches. Ship. wt., about 180 lbs.

A great combination outfit, thoroughly well made in every detail. Nothing cheap or shoddy about it, and we know it will please you.

184E6470—Lakeside Combination Outfit. Complete as described above. Price. **\$23.85**

Anvil, Vise. Vise has 4-inch jaws, with extra pipe jaws, takes pipe up to 2 $\frac{1}{2}$ inches. Anvil face is ground true with a $\frac{1}{2}$ -inch Hardie.

Outfit consists of: Emery Grinder with 6x1-inches fast cutting wheel. Quickly puts a good keen cutting edge on the tool.

Complete as described above. Price. **\$23.85**



Bar Iron

\$2.95 Per 100 Pounds

Weights and prices on Round, Square and Flat Iron shown below are for Single Bars of 14 feet. Sold only in bars. Order by the bar, not by the pound. Shipping weights given are approximate.

| 184E6480—Round Iron. | | | | | | | | | |
|---|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| Size, in. | 3/8 | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/2 |
| Wt. lbs. | 3 1/2 | 5 1/2 | 7 1/2 | 9 1/2 | 12 | 15 | 18 | 21 | 24 |
| Bar. | 13c | 18c | 24c | 31c | 40c | 48c | 56c | 64c | 72c |
| Size, in. | 3/8 | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/2 |
| Lbs. | 14 | 21 | 28 | 37 | 46 | 56 | 66 | 77 | 88 |
| Bar. | 45c | 66c | 87c | \$1.11 | 1.32 | 1.53 | 1.74 | 1.95 | 2.16 |
| 184E6481—Square Iron. | | | | | | | | | |
| Size, in. | 3/8 | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/2 |
| Lbs. | 6 1/2 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 |
| Bar. | 23c | 40c | 58c | 76c | 94c | 112c | 130c | 148c | 166c |
| 184E6482—Flat light bands 3/8 in. thick. | | | | | | | | | |
| Width, in. | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 |
| Wt. lbs. | 4 1/2 | 6 1/2 | 8 1/2 | 10 1/2 | 12 1/2 | 14 1/2 | 16 1/2 | 18 1/2 | 20 1/2 |
| Bar. | 20c | 28c | 36c | 44c | 52c | 60c | 68c | 76c | 84c |
| 184E6483—Flat Iron, 3/8 in. thick. | | | | | | | | | |
| Width, in. | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 |
| Wt. lbs. | 8 1/2 | 12 1/2 | 16 1/2 | 20 1/2 | 24 1/2 | 28 1/2 | 32 1/2 | 36 1/2 | 40 1/2 |
| Bar. | 36c | 52c | 68c | 84c | 100c | 116c | 132c | 148c | 164c |
| 184E6484—Flat Iron, 1/2 in. thick. | | | | | | | | | |
| Width, in. | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 |
| Wt. lbs. | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| Bar. | 40c | 60c | 80c | 100c | 120c | 140c | 160c | 180c | 200c |
| 184E6485—Flat Iron, 3/4 in. thick. | | | | | | | | | |
| Width, in. | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 |
| Lbs. | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| Bar. | 60c | 81c | 102c | 123c | 144c | 165c | 186c | 207c | 228c |
| 184E6486—Flat Iron, 1 in. thick. | | | | | | | | | |
| Width, in. | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 |
| Lbs. | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 |
| Bar. | 68c | 102c | 136c | 170c | 204c | 238c | 272c | 306c | 340c |
| 184E6487—Flat Iron, 1 1/4 in. thick. | | | | | | | | | |
| Width, in. | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 |
| Lbs. | 35 | 52 | 70 | 88 | 105 | 123 | 141 | 159 | 177 |
| Bar. | \$1.05 | \$1.58 | \$2.11 | \$2.64 | \$3.17 | \$3.70 | \$4.23 | \$4.76 | \$5.29 |
| Special Round Edge Tire Iron | | | | | | | | | |
| Weights and prices are for full sets of four bars, consisting of two bars 12 1/2 in. long, and two bars 13 1/2 in. long. Sold only in full sets of four bars. | | | | | | | | | |
| 184E6488—Tire in sets of four bars. | | | | | | | | | |
| Size, in. | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 | 3 1/4 |
| Wt. lbs. | 45 | 68 | 91 | 114 | 137 | 160 | 183 | 206 | 229 |
| Set. | \$1.46 | \$2.20 | \$2.93 | \$3.67 | \$4.40 | \$5.14 | \$5.87 | \$6.60 | \$7.34 |
| Size, in. | 1 1/4 | 1 1/2 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 | 3 1/4 |
| Wt. lbs. | 137 | 206 | 275 | 344 | 413 | 482 | 551 | 620 | 689 |
| Set. | \$4.24 | \$6.60 | \$8.96 | \$11.32 | \$13.68 | \$16.04 | \$18.40 | \$20.76 | \$23.12 |

\$39.00

For Complete Outfit

Lakeside Acetylene Welding Outfit

Indispensable for Garages, Blacksmiths, Sheet Metal Workers, Plumbers, Electricians, Saw Mills, Factories, and Farmers who do their own repairing.

Anyone, with little practice, can accomplish results that seem marvelous. Follow the instruction book furnished with each outfit. It takes only a few minutes for ordinary jobs.

Lakeside Oxy-Acetylene Welding Outfits are the most practical and improved upon the market—with one you can

weld the most delicate or the heaviest pieces of Iron, Steel, Brass, Aluminum, or in fact any metal that melts. You can also remove Carbon from a 6-cylinder car in a few minutes.

A Cutting Tip Number 184E6652 can be provided that will cut steel up to 3 $\frac{1}{2}$ inches in thickness—all that is necessary is to remove the welding tip, place the cutting tip in the torch, increasing your oxygen pressure to 75 or 80 pounds, leaving your acetylene pressure the same as for welding.

Any ordinary workman, after reading the instructions furnished with the outfit, can go to work in a very short time. Large profits are made from welding for others.

184E6550—This outfit contains: 1 Lakeside Welding Torch with six tips. This Welding Torch has been passed upon by the Underwriters; it is a non-flash torch made of heavy brass.

- 1 Carbon Removing Torch
- 1 Safety Torch Lighter
- 1 Number 30 Safety Front Oxygen Regulator, with one 3000-pound U. S. Gauge, regular cubic feet and one 300-pound U. S. gauge
- 1 Number 35 Acetylene Regulator, equipped with one 300-pound U. S. Gauge and one 50-pound U. S. Gauge
- 1 Length of 5-ply Oxygen Hose, 12 $\frac{1}{2}$ feet
- 1 Length of 5-ply Acetylene Hose, 12 $\frac{1}{2}$ feet
- 4 Hose Clamps
- 1 Pair Welding Goggles
- 1 Instruction Book
- 1 Adapter
- 8 Cast Iron Rods
- 3 Brass Rods
- 3 Aluminum Rods
- 10 Steel Rods
- 1 Pound Cast Iron Flux
- 1 Pound Brass Flux
- 1 Pound Aluminum Flux

Price, per complete outfit in wooden box. **\$49.00**



84E6551—A Welding and Carbon-burning Outfit that will do anything that can be done with any outfit, except that the oxygen and acetylene regulators have only one gauge upon them, the gauge giving the welding pressure only and does not compute the gas.

1 Lakeside Welding Torch with 5 welding tips; 1 Carbon-burning

Torch and safety torch lighter; 1 Oxygen Regulator with 50-pound gauge; 1 Acetylene Regulator with 50-pound gauge; 2 10-foot lengths of hose and hose connections; 1 pair of welding goggles; 1 instruction book.

Adapter, hose, clamps, rods and flux, same as in outfit 184E6550.

84E6551—Outfit, complete. **\$39.00**

Packed in a box—shipping weight, 30 pounds.



Lakeside Cutting Torch

84E6554—One of the most up-to-date Cutting Torches upon the market, cutting from the lightest steel up to 8 inches in thickness and can be attached to any make of Welding Equipment. Lakeside Cutting Torch with 3-coppe cutting tips. Packed in a box. Shipping weight, 6 pounds. Each. **\$21.50**

Lakeside Cutting Tip

184E6552—Cutting Tip for above outfit will cut steel up to 3 $\frac{1}{2}$ inches. Each. **\$4.50**

Lakeside Welding Supplies

| 84E6560—Cast Iron | | | | |
|--|-----|-----|-----|-----|
| Welding Rods. | 3/8 | 1/2 | 3/4 | 1 |
| Price, per pound. | 15c | 15c | 10c | 10c |
| 84E6561—Steel | | | | |
| Welding Rods. | 3/8 | 1/2 | 3/4 | 1 |
| Price, per pound. | 18c | 15c | 15c | 15c |
| 84E6562—Aluminum | | | | |
| Rods (cast). | 3/8 | 1/2 | 3/4 | 1 |
| Price, per pound. | 75c | 75c | 75c | 75c |
| 84E6563—Brazing | | | | |
| Wire. | 3/8 | 3/8 | 3/8 | 3/8 |
| Price, per pound. | 55c | 55c | 55c | 55c |
| 84E6558—Flux: For Cast Iron, Brass, Steel, Aluminum. | | | | |
| Per pound. | 35c | 35c | 35c | 35c |
| 84E6559—Hose: For Oxygen and Acetylene 5-ply plain. | | | | |
| Per foot. | 20c | 20c | 20c | 20c |

Champion Post Drills for Heavy Work



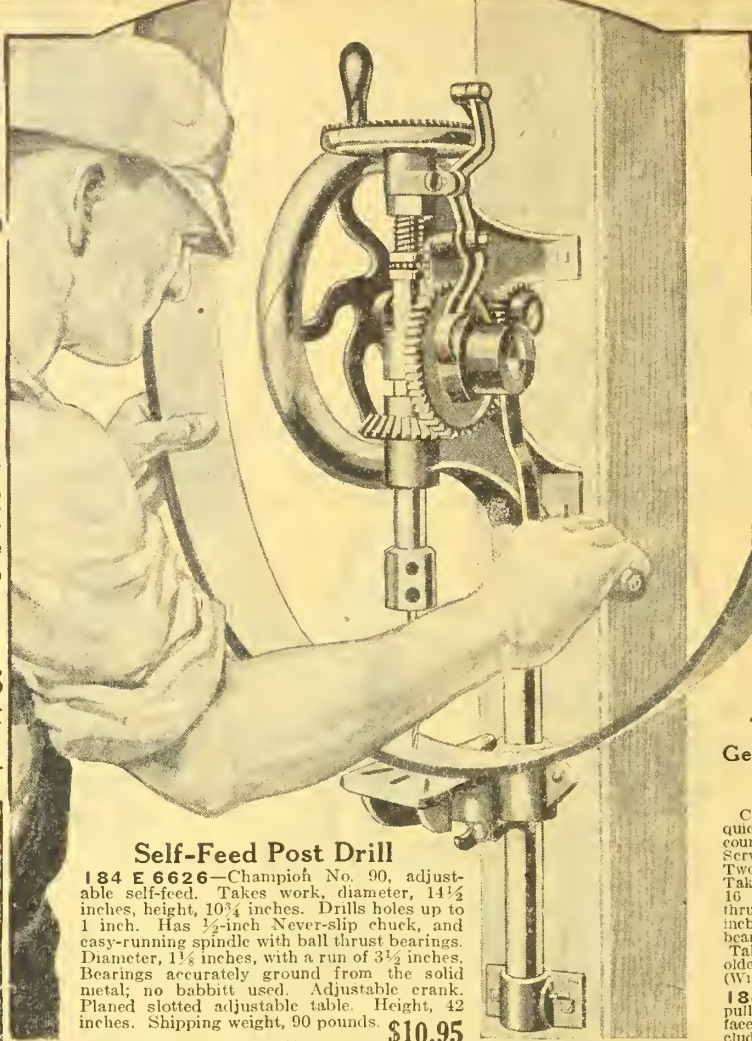
Self-Feed Post Drill

Champion No. B. B. Adj. Self-feed and two speeds; takes work, diameter 16 inches, height, 9 inches. Drills holes up to 1 1/2 inches. Has 1/2-inch Never-slip chuck. Ball thrust bearing. Spindle diameter, 1 1/2 inches. Run, 3 inches. All bearings ground from solid metal. Smooth gears. Adjustable slotted table. Mounted on heavy board. Height, 46 inches. **184 E 6630**—(Hand crank, adjustable (no pulleys). Shipping weight, 117 pounds. **\$16.75**



Quick-Return Self-Feed Post Drill

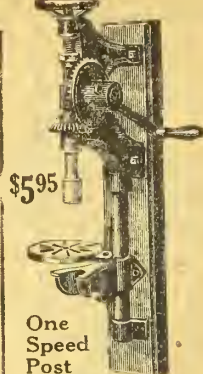
Champion No. 97. Self feed and wheel hand feed for raising or lowering drill bit. Two speeds. Takes work, diameter 16 1/2 inches, height, 13 1/2 inches. Drills holes 1 1/2 inches. Has 1/2-inch Never-slip chuck. Ball thrust bearing. Diameter, spindle, 1 1/2 inches, run, 5 1/2 inches. Smooth gears. Adjustable slotted table. Mounted on heavy board, height, 50 inches. **184 E 6638**—Tight and loose pulleys for power. Size 6x2 inch face. Speed, 250 r. p. m. Shipping weight, 180 pounds. **\$28.25**



Self-Feed Post Drill

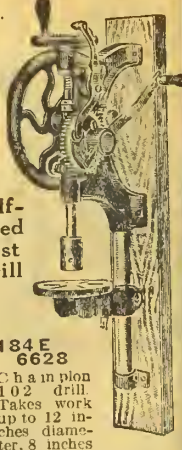
184 E 6626—Champion No. 90, adjustable self-feed. Takes work, diameter, 14 1/2 inches, height, 10 3/4 inches. Drills holes up to 1 inch. Has 1/2-inch Never-slip chuck, and easy-running spindle with ball thrust bearings. Diameter, 1 1/2 inches, with a run of 3 1/2 inches. Bearings accurately ground from the solid metal; no babbitt used. Adjustable crank. Planed slotted adjustable table. Height, 42 inches. Shipping weight, 90 pounds. **\$10.95**

Set of Drill Bits **84 E 1058**—Made with 1/2-inch round shank, milled flat on one side. Fit post drills shown on this page. Will drill metal or wood. Sizes, 1/2, 3/8, 5/16, 3/16, 1/8 inches. Weight, 12 ounces. Genuine Cleveland Twist Drill Co. Per set of four. **\$2.15**



One Speed Post Drill

184 E 6622—Champion No. 92. Hand feed Drill. Takes work, diam., 12 in.; height, 8 1/4 in. Drills holes up to 1/2 in. Has 1/2-in. Never-slip chuck. Spindle has ball thrust bearing. Diam., 1 1/2 in., with a run of 3 in. All bearings are accurately ground from the solid metal (no babbitt used). Adj. crank, smooth gears. Slotted adjustable table. Mounted on heavy board. Ht., 36 in. Ship. wt., 55 lbs. **\$5.95**



Self-Feed Post Drill

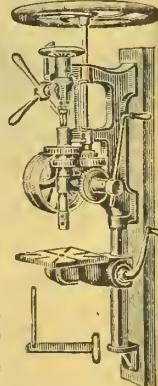
184 E 6628—Champion 102 drill. Takes work up to 12 inches diameter, 8 inches high. Spindle is ball bearing with up and down run of 3 inches. Automatic self-feed. Never-slip chuck holds drill with regular 1/2-inch round shanks. Bearings ground from solid metal. Smooth gears. Adjustable crank. Drill is mounted on heavy board. Height, 34 inches. Shipping weight, 63 pounds. **\$8.35**

Two Speeds by Sliding Gears Combined Lever and Self-Feed

Champion No. 7 Imp. Adj. Self-feed; quick-acting, lever feed for reaming, countersinking, wood boring, etc. Serves also as quick-return for drill. Two speeds, ratios, 24 to 1 and 8 to 1. Takes work, diameter 2 1/2 inches, height, 16 inches. Has 1/2-inch chuck. Ball thrust bearing. Diameter, spindle, 1 1/2 inches, run, 5 1/2 inches. Solid ground bearings. Machine cut, covered gears. Table has quick-acting rack with wheel older. Mounted on heavy board, (Without drills) Total height, 69 inches.

184 E 6644—With tight and loose pulleys for power. Size, 11x2 1/2 inches face; speed, 80 R. P. M. Crank included. Shipping weight, 350 **\$49.90**

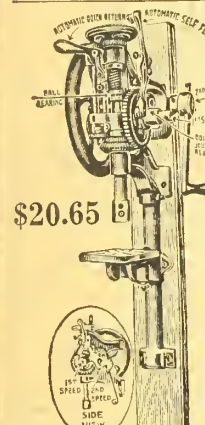
184 E 6645—With adjustable crank; no pulleys Shipping weight, 328 pounds. **\$44.90**



Blacksmiths' Bench Drill

184 E 6650—Heavy iron frame, with steel spindle and chuck for square shank bit stock drills. Length, 26 inches; height, 7 3/4 inches. Shipping weight, 22 pounds. **\$2.45**

(For suitable drill bits see No. 84E1050 on page 799 of this book.)



\$20.65

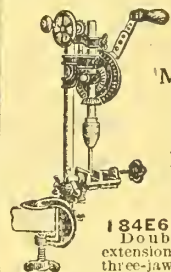


Self-Feed Post Drill

\$14.50

184 E 6634—Champion No. 96. Adjustable self-feed, and very convenient Quick Return attachment which draws bit out of hole to the desired height and then unshifts. Two speeds; ratios, 1.53 to 1. and .53 to 1. Takes work, diameter 15 inches, height, 9 inches. Drills holes up to 1 1/4 inches. Has 1/2-inch Never-slip chuck. Spindle has easy-running, ball thrust-bearing. Diameter 1 1/2 inches run, 2 1/4 inches. Bearings ground from solid metal. Smooth gears. Adjustable slotted table. Mounted on heavy board. Shipping weight, 126 pounds. **\$20.65**

Ball Bearing Throughout **184 E 6620**—Champion two-speed, self feed post drill. Takes work, diam., 15 in. Ht., 10 1/2 in. Drills holes up to 1 1/4 in. Has 1/2-in. Never-slip chuck. Spindle easy-running, ball thrust-bearing. Diam., 1 1/2 in., run, 3 1/2 in. Bearings ground from solid metal. Smooth gears. Adj. crank. Adjustable slotted table. Mounted on heavy board. Ship. wt., 110 lbs. **\$14.50**



Millers Falls Drill Press

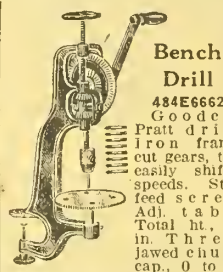
184 E 6674—Double gears, extension handle, three-jawed chuck, taking round shank drills up to 1/2 in. Bench clamp vise rest and frame all clamped to main standard, and fully adjustable. Total height, about 24 in. Vise hung off center so as to give variety of positions. Ship. wt., 28-lbs. **\$12.45**



Bench Drill

484 E 6664—Solid iron frame, cut gear, steel feed screw. Adj. table. Total ht., 15 in.; table to feed wheel, 13 in. Three-jawed chuck, cap., 0 to 3/4 in. Eight assorted fluted drills. Ship. wt., 12 lbs. **\$5.95**

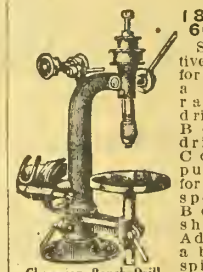
84 E 6665—Drill Vise. Used in place of table Jaws open 1 1/2 in. Ship. wt., 2 lbs. **\$1.65**



Bench Drill

484 E 6662—Goodell-Pratt drill. Iron frame, cut gears, two easily shifted speeds. Steel feed screw. Adj. table. Total ht., 15 in. Three-jawed chuck, cap., 0 to 3/4 in. Eight fluted drill bits. Ship. wt., 18 lbs. **\$8.95**

84 E 6663—Drill Vise. Used in place of table Jaws open 2 in. Ship. wt. 4 1/2 lbs. **\$2.40**



Champion Bench Drill

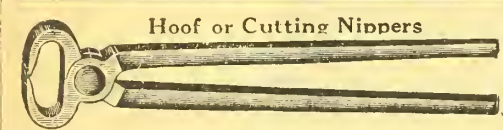
End thrust ball-bearing. 3 jawed chuck holds drills up to 3/4 in. Tight and loose pulley, 4x1 1/2 in. Table, 8 in diameter. Speed of drive pulley 550 r.p.m. Height, 27 1/2 in. Ship. wt., 75 lbs. **\$25.75**



Blacksmiths' Bench Drill

184 E 6650—Heavy iron frame, with steel spindle and chuck for square shank bit stock drills. Length, 26 inches; height, 7 3/4 inches. Shipping weight, 22 pounds. **\$2.45**

(For suitable drill bits see No. 84E1050 on page 799 of this book.)



Hoof or Cutting Nippers

84 E 7008—Made of forged steel, finely finished. Jaws highly tempered and intended for cutting only. Should not be used for prying or twisting. Ship. wt., 1 1/4 to 3 pounds. **\$1.38**



Genuine Heller Bros. Hoof Parers

84 E 7002—Highest grade crucible steel. Full polished.

| Length | Ship. Wt. | Each |
|--------|------------|---------------|
| 12 in. | 2 1/4 lbs. | \$1.95 |
| 14 in. | 3 lbs. | 2.40 |



Easy Hoof Trimmer

84 E 7015—Has a detachable knife, easily adjusted. Length, 12 in.; opens 1 1/4 in., cuts 1 in. Ship. wt., 3 lbs. **\$1.85**

84 E 7016—Extra knife for above. Ship. wt., 2 oz. **35c**



Hoof Parers

84 E 7000—Fine forged steel. Polished jaws. Extra quality.

| Length | Ship. Wt. | Each |
|--------|------------|---------------|
| 12 in. | 2 1/4 lbs. | \$1.35 |
| 14 in. | 3 lbs. | 1.50 |

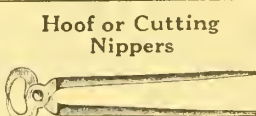
Heller Bros. Cutting Nippers

84 E 7012—Made of the finest grade of crucible steel.

| Length | Ship. Wt. | Each |
|--------|------------|---------------|
| 12 in. | 2 lbs. | \$1.98 |
| 14 in. | 2 1/2 lbs. | 2.45 |

Cotter Pin Extractor

84 E 7082—Forged steel, oil finish. A very useful tool. Leth., 7 in. Ship. wt., 4 oz. **10c**



Hoof or Cutting Nippers

84 E 7010—Made of heavy forged steel. A very tight gripping nipper. Length, 14 in. Ship. wt., 2 1/2 lbs. **89c**

Blacksmiths' Leather Aprons

Prices subject to change. Ship. wt., 2 to 3 lbs.

84 E 7090—Split leather apron. Size, 25x34 in. **\$2.55**

84 E 7091—Muleskin Apron. Size, 25x34 in. **\$2.95**

84 E 7092—Split leather apron. Size, 27 1/4 x 38 in. **\$3.25**

84 E 7093—Muleskin apron. Size, 28x38 in. **\$3.75**



Blacksmiths' Pincers

84 E 6995—A substantial tool for hard every-day use. Forged steel, polished jaws. Full weight and correct shape. Excellent for mechanic or stable. Shipping weight, about 2 pounds. **72c**

Length, 12 inches. **78c**

Length, 14 inches. Shipping weight 2 1/2 pounds. **78c**

Blacksmiths' Tongs

84 E 6980—Straight lip. Forged steel; one piece. Lengths are approximate. (Give size.) Length 20 in. Ship. wt., 3 lbs. **58c**

Length, 22 in. Ship. wt., 3 1/2 lbs. **72c**

Farriers' Pincers

84 E 6998—Forged from crucible steel carefully tempered. Length, 14 in., width of jaws, 1 1/4 in. Ship. wt., 3 1/4 lbs. **98c**

Horseshoers' Tongs

84 E 6985—Solid Steel drop forged. Length, 12 in. Ship. wt., about 2 lbs. **58c**

Length, 14 in. Shipping wt., about 2 1/2 lbs. **62c**

Clinch Tongs

84 E 6990—Clinch Tongs made of tool steel. Length, 14 in. Ship. wt., 2 lbs. **\$1.98**

Blacksmiths' Gad Tongs

84 E 6982—Solid forged steel. Length and weights are approximate. Length, 18 in. Ship. wt., 2 1/2 lbs. **72c**

Length, 22 in. Ship. wt., 3 1/2 lbs. **\$1.10**

Blacksmiths' Bolt Tongs

84 E 6984—Forged Steel Grooved jaws. Ship. wt., 2 1/2 lbs. (Give size.)

| Length, in. | Weight, lbs. | Price |
|-------------|--------------|-------|
| 14 | 1 3/4 | 84c |
| 16 | 2 1/4 | 98c |
| 18 | 3 1/4 | 1.10 |
| 20 | 4 3/4 | 1.25 |
| 22 | 5 3/4 | 1.40 |
| 24 | 6 3/4 | 1.55 |
| 26 | 7 3/4 | 1.70 |
| 28 | 8 3/4 | 1.85 |
| 30 | 9 3/4 | 2.00 |
| 32 | 10 3/4 | 2.15 |
| 34 | 11 3/4 | 2.30 |
| 36 | 12 3/4 | 2.45 |
| 38 | 13 3/4 | 2.60 |
| 40 | 14 3/4 | 2.75 |
| 42 | 15 3/4 | 2.90 |
| 44 | 16 3/4 | 3.05 |
| 46 | 17 3/4 | 3.20 |
| 48 | 18 3/4 | 3.35 |
| 50 | 19 3/4 | 3.50 |
| 52 | 20 3/4 | 3.65 |
| 54 | 21 3/4 | 3.80 |
| 56 | 22 3/4 | 3.95 |
| 58 | 23 3/4 | 4.10 |
| 60 | 24 3/4 | 4.25 |
| 62 | 25 3/4 | 4.40 |
| 64 | 26 3/4 | 4.55 |
| 66 | 27 3/4 | 4.70 |
| 68 | 28 3/4 | 4.85 |
| 70 | 29 3/4 | 5.00 |
| 72 | 30 3/4 | 5.15 |
| 74 | 31 3/4 | 5.30 |
| 76 | 32 3/4 | 5.45 |
| 78 | 33 3/4 | 5.60 |
| 80 | 34 3/4 | 5.75 |
| 82 | 35 3/4 | 5.90 |
| 84 | 36 3/4 | 6.05 |
| 86 | 37 3/4 | 6.20 |
| 88 | 38 3/4 | 6.35 |
| 90 | 39 3/4 | 6.50 |
| 92 | 40 3/4 | 6.65 |
| 94 | 41 3/4 | 6.80 |
| 96 | 42 3/4 | 6.95 |
| 98 | 43 3/4 | 7.10 |
| 100 | 44 3/4 | 7.25 |

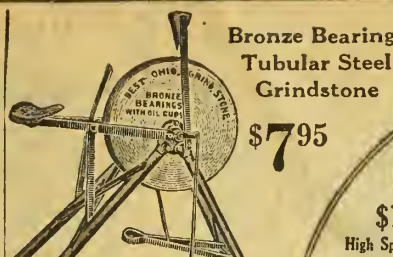
Well Sharpened Tools Save Time and Labor



Steel Frame Power Grindstone
84 E 6785—A substantial machine with Steel Frame, easy running Ball Bearings and heavy Galv. Iron Pan, or rough. Has steel shaft with alloy. Size of pulley, 6 inches diameter. Best grade Ohio grindstone. Smooth, even grit. Diameter, about 22 inches and 3 inches thick. An excellent grinder for the farm or shop. Shipping weight, about 170 pounds. **\$13.75**



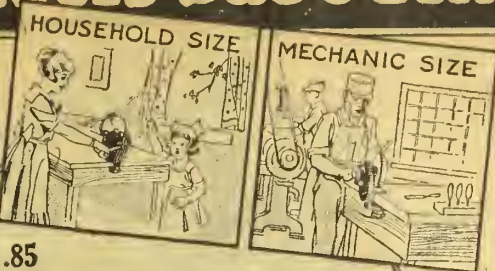
Emery Wheel Dresser
84 E 6748—Especially for dressing wheels or grindstones. Jam. cutters, 1 1/2 in. Ship. wt., lbs. With two sets of cutters. Set. **80c**
84 E 6749—Extra cutters. Ship. wt., 2 oz. Set. **10c**



Bronze Bearing Tubular Steel Grindstone
\$7.95
For All General Sharpening
84 E 6781—Heavy Steel Tubular Frame. Legs are firmly braced and clamped to main brackets at top. Has hard bronze self-aligning bearings with oil cups. Bearings run easily and smoothly. Fitted with a smooth, Ohio grindstone, diameter, about 20 inches; thickness, 2 inches. Shipping weight about 100 pounds. **\$7.95**



Emery Wheel Dresser
84 E 6745—Shipping weight, 2 pounds. With two sets of cutters. **55c**
84 E 6746—Extra Cutters. Shipping weight, dozen sets, 1 1/2 pounds. Set. **75c**
 Set. 7c; dozen sets. **75c**



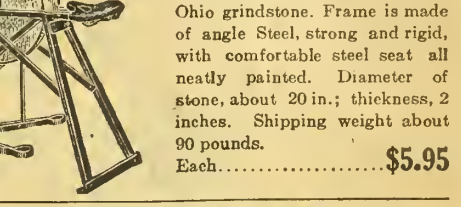
HOUSEHOLD SIZE
MECHANIC SIZE
High Speed Tool Grinder
\$1.85
Household Size
84 E 6680—Puts keen edge on knives, scissors, etc. Will fit into drawer or cupboard. Clamp on table or sink. Wheel, 4 1/2 inch. Shipping wt., 5 lbs. **\$1.85**
Mechanic Size
84 E 6681—Will fit handily into tool chest, but is big enough for all tool-grinding required by mechanic who goes out on the job. Grinding wheel, 6x1 inch. Shipping weight, 6 1/2 pounds. **\$2.65**



Shop or Garage Size
84 E 6682—For work bench in repair shop or private garage. Mechanic like it for sharpening their tools. Grinding wheel, 6x1 inch. Shipping weight, 10 pounds. **\$3.85**
Factory Size
84 E 6683—A big, powerful grinder for Machine Shops, Lumber Camps, Ranches, etc. Large, yet smooth-running; heaviest grinding is easily handled. Grinding wheel, 7x1 inch. Shipping weight, 13 1/2 pounds. **\$4.95**



Sickle and Tool Grinder
184 E 6691—Made entirely of metal, bolted and trussed, assuring you of long service. This grinder has spiral cut gears (like a fine cream separator), and is designed for all classes of grinding on farm tools. Has steel pinions and a shaft with full allowance for adjustment. Equipment includes a 3 1/2 x 3 1/2 sickle cone and one medium grit corundum tool wheel size 5x1 1/2 inches; also one sickle holder attachment and adjustable work rest. An exceptionally fast cutting grinder. Shipping weight, 55 pounds. **\$12.50**



Easy Running Ball Bearing Steel Frame Grindstone
184 E 6780—Steel Frame Grindstone with easy running Ball-Bearings. Fitted with a smooth, even grit, best quality Ohio grindstone. Frame is made of angle Steel, strong and rigid, with comfortable steel seat all neatly painted. Diameter of stone, about 20 in.; thickness, 2 inches. Shipping weight about 90 pounds. **\$5.95**

Lakeside Emery Corundum Wheels
 Made from best grades of pure corundum and emery.
 Note.—Give diameter, thickness, size of hole, shape of face and purpose or class of work. We will select the wheel best adapted for your work.
84 E 8510—Square face wheels. Shipped from Stock at Chicago Store.
284 E 8512—Round face wheels. Shipped from Factory in Northern Illinois. Give size hole wanted.

| Thickness of Wheels in Inches | | | | | | | | | |
|-------------------------------|---------|---------|---------|---------|-------|-------|-------|---|--|
| | 1/4 | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 | |
| 18c | \$.22 | \$.27 | \$.29 | \$.29 | | | | | |
| 24c | \$.30 | \$.36 | \$.45 | \$.45 | | | | | |
| 32c | \$.42 | \$.51 | \$.65 | \$.65 | | | | | |
| 36c | \$.48 | \$.59 | \$.75 | \$.75 | | | | | |
| 40c | \$.54 | \$.66 | \$.85 | \$.85 | | | | | |
| 44c | \$.60 | \$.73 | \$.95 | \$.95 | | | | | |
| 48c | \$.66 | \$.81 | \$ 1.07 | \$ 1.07 | | | | | |
| 52c | \$.72 | \$.88 | \$ 1.17 | \$ 1.17 | | | | | |
| 56c | \$.78 | \$.96 | \$ 1.27 | \$ 1.27 | | | | | |
| 60c | \$.84 | \$ 1.03 | \$ 1.37 | \$ 1.37 | | | | | |
| 64c | \$.90 | \$ 1.10 | \$ 1.47 | \$ 1.47 | | | | | |
| 68c | \$.96 | \$ 1.17 | \$ 1.57 | \$ 1.57 | | | | | |
| 72c | \$ 1.02 | \$ 1.24 | \$ 1.67 | \$ 1.67 | | | | | |
| 76c | \$ 1.08 | \$ 1.31 | \$ 1.77 | \$ 1.77 | | | | | |
| 80c | \$ 1.14 | \$ 1.38 | \$ 1.87 | \$ 1.87 | | | | | |
| 84c | \$ 1.20 | \$ 1.45 | \$ 1.97 | \$ 1.97 | | | | | |
| 88c | \$ 1.26 | \$ 1.52 | \$ 2.07 | \$ 2.07 | | | | | |
| 92c | \$ 1.32 | \$ 1.59 | \$ 2.17 | \$ 2.17 | | | | | |
| 96c | \$ 1.38 | \$ 1.66 | \$ 2.27 | \$ 2.27 | | | | | |
| 100c | \$ 1.44 | \$ 1.73 | \$ 2.37 | \$ 2.37 | | | | | |

84 E 8515—Square Face. For all kinds of work on iron and steel castings, plows, agricultural implements, etc. Prices are each. Shipping weights 12 to 45 pounds.

| Thickness of wheel in inches | | | | |
|------------------------------|--------|--------|--------|--------|
| Diameter in inches | 1 1/4 | 1 1/2 | 2 | 2 1/4 |
| 8 | \$1.82 | \$2.06 | \$2.58 | \$3.08 |
| 10 | 2.66 | 2.98 | 3.85 | 4.60 |
| 12 | 3.38 | 3.92 | 4.98 | 6.05 |
| 14 | 4.24 | 4.92 | 6.34 | 7.75 |
| 16 | 5.26 | 6.13 | 7.92 | 9.60 |

Special Tool Grinding Wheel
84 E 8518—For edge tools. Will put a keen, smooth edge on any tool in short time. Shipping weight, 2 ounces to 15 pounds.

| Thickness—Inches | | | | |
|------------------|--------|--------|--------|--------|
| Diameter | 1/2 | 1 | 1 1/4 | 1 1/2 |
| 4 inches | \$.60 | \$.72 | \$.84 | \$.96 |
| 6 inches | .98 | 1.23 | 1.40 | 1.58 |
| 8 inches | 1.58 | 1.88 | 2.20 | 2.48 |
| 10 inches | 2.23 | 2.70 | 3.20 | 3.67 |

Special Saw Gunning Wheel
84 E 8520—Round face. Fast cutting wheel. Shipped from stock. Shipping weight, 1 to 12 pounds.
284 E 8581—Bevel face. Shipped from factory in Northern Illinois. Same sizes and prices as round face.

| Thickness—Inches | | | | |
|------------------|--------|--------|--------|--------|
| Diam. in. | 1/2 | 3/4 | 1 | 1 1/4 |
| 6 | \$.35 | \$1.08 | \$1.09 | \$1.30 |
| 7 | 1.03 | 1.35 | 1.36 | 1.63 |
| 8 | 1.20 | 1.60 | 1.61 | 1.98 |
| 9 | 1.40 | 1.89 | 1.90 | 2.34 |
| 10 | 1.62 | 2.20 | 2.22 | 2.79 |
| 12 | 1.89 | 2.70 | 2.72 | 3.51 |

Cloth Buffing Wheels
84 E 6742—Unbleached Muslin. 18-ply. Shipping weight, 3 to 12 ounces.
 Diameter, inches..... 4 6 8 10 12
 9c 20c 30c 48c 67c



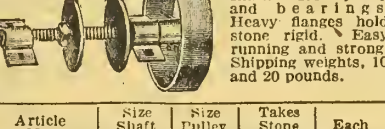
Millers Falls Goodell Lathe
 A fine, two-speed, iron frame lathe for amateur use. With 2-in. face plate, spur center, screw center, emery wheel 4x3/4 inches, and steel drill chuck. Tail stock has a screw-feed center, with clamp. With long and short tool rest. Turning tools, wrench and drill points. Length, 4 inches. Between centers, 13 1/2 inches. Swing, 1 1/2 inches.
84 E 175—With Scroll Saw, as illustrated, saving table and blower and 12 saw blades. Shipping weight, 78 pounds. **\$24.95**
84 E 174—Without Scroll Saw. Shipping weight, 70 pounds. **\$21.75**

Unmounted Grindstones
184 E 6788—Smooth, even grit, fast cutting. Weights given will vary somewhat.

| Diameter in inches | Ship. Wt. Lbs. | Each |
|--------------------|----------------|--------|
| 16 | 40 | \$1.40 |
| 18 | 50 | 1.75 |
| 20 | 60 | 2.10 |
| 22 | 80 | 2.80 |
| 24 | 100 | 3.50 |
| 26 | 120 | 4.20 |
| 28 | 150 | 5.25 |
| 30 | 200 | 7.00 |



Combination Grinder and Lathe
184 E 178—Goodell-Pratt—Style 306. Foot Power Bench Grinder with Lathe attachment.
 Bed of lathe is 18 in. long, 12 in. between centers, and will swing 5 in. Has a spur center for the lathe and the Tail stock has a reversible spindle with a center on each end. Adjustable tee rest. Price does not include table. High-grade Abrasive wheel, 4x1-in. Ship. wt., 29 lbs. **\$11.25**

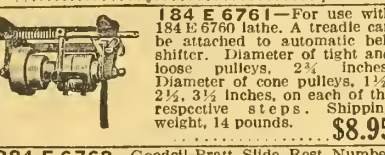


| Article No. | Size Shaft in inches | Size Pulley in inches | Takes Stone up to | Each |
|-------------|----------------------|-----------------------|-------------------|--------|
| 484 E 6794 | 12x 3/4 | 7x1 1/4 | 4x24 in. | \$1.98 |
| 484 E 6795 | 18x1 1/4 | 8x3 | 4x36 in. | 3.65 |

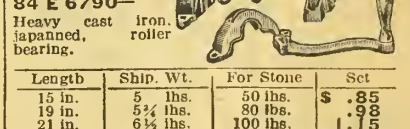
| Size..... | 1 | 2 | 3 | 4 |
|---------------------|---------|---------|----------|-----------|
| Drive pulley | 8x2 | 9x2 1/2 | 10x3 1/2 | 12x4 |
| Other pulleys.... | 4x2 | 4x2 | 5x3 | 5x3 |
| Drop of Hanger.... | 6 in. | 6 in. | 8 in. | 8 in. |
| Length shaft..... | 18 in. | 21 in. | 24 in. | 26 in. |
| Diameter shaft..... | 1/4 in. | 1/4 in. | 1 in. | 1 1/4 in. |
| Ship wt..... | 40 lbs. | 55 lbs. | 60 lbs. | 70 lbs. |
| | \$7.20 | \$9.25 | \$11.20 | \$14.75 |



Goodell-Pratt Bench Lathe
184 E 6760—Goodell-Pratt Lathe Number 494. 18 inches between centers, 7 inch swing. Side rest, compression chuck, and countershaft listed below. This lathe requires less than 1/4 horse power and will operate within limits for such jobs as turning up starter arbors, turning down commutators, facing off badly pitted valves, and general repair work. Shipping weight about 40 pounds. **\$25.75**



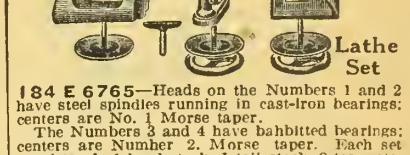
184 E 6761—For use with 184 E 6760 lathe. A treadle can be attached to automatic belt shifter. Diameter of tight and loose pulleys, 2 1/2 inches. Diameter of cone pulleys, 1 1/2, 2 1/2, 3 1/2 inches, on each of the respective steps. Shipping weight, 14 pounds. **\$8.95**
284 E 6762—Goodell-Pratt Slide Rest Number 132—solid 1/4x1/4 lathe tools—used with 184 E 6760 lathe. Shipping weight, 8 pounds. **\$1.10**
284 E 6763—Compression Chuck. Goodell-Pratt Number 129. Used with 184 E 6760 lathe. Complete with one bushing. Shipping weight, 3 lbs. **\$5.00**
 Slide Rest and Chuck Shipped from Factory in Massachusetts.



| Length | Ship. Wt. | For Stone | Set |
|--------|------------|-----------|--------|
| 15 in. | 5 lbs. | 50 lbs. | \$.85 |
| 19 in. | 5 1/2 lbs. | 80 lbs. | .98 |
| 21 in. | 6 1/2 lbs. | 100 lbs. | 1.15 |



Polishing Head
84 E 6702—For round belt. Height, 6 inches. Has 9-inch spindle diam. between flanges 3/4 inch. One end has taper screw; other end will hold emery wheels up to 6 1/2 inch buffers, and small saws. Has chuck for drills up to 3/32 inch. Shipping weight, 4 pounds. **\$2.35**

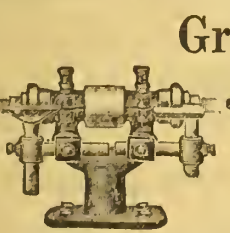


| Size | Swings in inches | Speeds on Cone | Width Belt | Ship. Wt. Pounds | Set |
|------|------------------|----------------|------------|------------------|---------|
| 1 | 6 | 2 | 1 | 18 | \$14.75 |
| 2 | 8 | 2 | 1 1/4 | 35 | 21.95 |
| 3 | 11 | 3 | 1 1/2 | 80 | 35.75 |
| 4 | 13 | 4 | 1 3/4 | 115 | 54.75 |

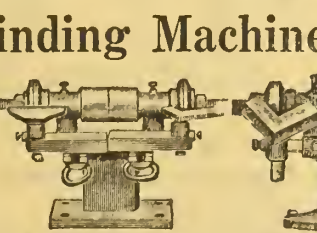
Center Shaft for Lathe Sets
184 E 6766—To use with above Lathe Sets. Two to four steps on cone. Pulleys match pulleys on same size lathe sets. (Give size.)
 Size..... No. 1 No. 2 No. 3 No. 4
 Shipping weight, pounds 23 25 48 57
 \$6.90 \$11.25 \$15.75 \$19.75



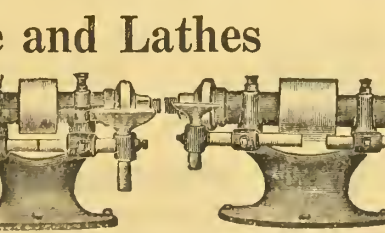
Power Grinder with Stand
84 E 6710—Without floor Stand. Ship. wt., 15 lbs. **\$3.78**
184 E 6711—With floor Stand. Height, 32 in. Ship. wt., 65 lbs. **\$11.25**



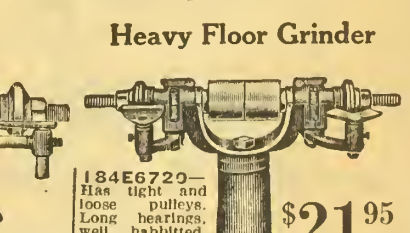
84 E 6712—Without floor Stand. Ship. wt., 25 lbs. **\$7.65**
184 E 6713—With Stand. Hgt., 32 in. Ship. wt., 85 lbs. **\$15.85**



84 E 6714—Will run two wheels 8 1/2 x 1 1/4 in. thick. Steel arbor 14 in. long, 3/4 inch in the bearings. Pulley 2 1/2 x 2 in. face. Height to center of arbor, 6 1/2 in. Two adjustable rests.
84 E 6715—Without floor Stand. Ship. wt., 45 lbs. **\$12.85**
184 E 6716—With Stand. Hgt., 29 1/2 in. Ship. wt., 130 lbs. **\$25.25**



84 E 6717—Without floor Stand. Ship. wt., 100 lbs. **\$17.75**
184 E 6718—With Stand. Height, 27 1/2 in. Ship. wt., 230 lbs. **\$33.25**



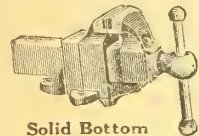
Heavy Floor Grinder
184 E 6720—Has tight and loose pulleys. Long bearings, well habbitted, with dust-proof collars. Adjustable rests. Will carry two wheels 12x2 in. diameter, 1 1/2 in. thick. Height, arbor to floor, 35 1/2 inches. Length, arbor, 27 in. Diam. arbor between collars, 1 in. Size pulleys, 3 1/2 x 3 in. face. Ship. wt., about 105 lbs. **\$21.95**

Blacksmiths' Supplies Built for Endurance



Lakeside Malleable Machinists' Vise
This vise is unbreakable under ordinary usage. Made of high-grade malleable iron throughout, except the steel face on the jaws, steel screw and the handle. Screw and handle are solid forgings. Both jaws are faced with tool steel.

| Article Number | Width Jaws | Jaws Open | Ship. Wt. | Each |
|----------------|------------|-----------|-----------|---------|
| 484E6810 | 3 1/2 in. | 5 in. | 26 lbs. | \$ 8.95 |
| 484E6811 | 4 in. | 6 in. | 33 lbs. | 10.25 |



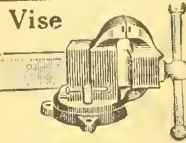
Machinists' Vise

Full size, strong and substantial. Made of heavy iron. Tempered steel jaws, nicely polished. Strong steel screw with cut threads.

| Article Number | Width Jaws | Jaws Open | Ship. Wt. | Each |
|----------------|------------|-----------|-----------|---------|
| 484E6800 | 3 1/2 in. | 4 in. | 24 lb. | \$ 6.75 |
| 484E6801 | 4 in. | 5 1/2 in. | 30 lb. | 7.50 |
| 484E6802 | 4 1/2 in. | 6 in. | 44 lb. | 9.30 |
| 484E6803 | 5 in. | 7 in. | 55 lb. | 11.95 |

Swivel Bottom Vise

Made with a swivel bottom so the vise can be turned to convenient angles. Tempered steel jaws, nicely polished. Strong steel screw with cut threads.



| Article Number | Width Jaws | Jaws Open | Ship. Wt. | Each |
|----------------|------------|-----------|-----------|---------|
| 484E6805 | 3 1/2 in. | 4 in. | 30 lbs. | \$ 8.75 |
| 484E6806 | 4 in. | 5 1/2 in. | 38 lbs. | 10.20 |
| 484E6807 | 4 1/2 in. | 6 in. | 54 lbs. | 11.95 |
| 484E6808 | 5 in. | 7 in. | 66 lbs. | 17.95 |

Swivel Bottom Vise

Steel faced jaws. Vise can be clamped at any convenient angle. 484E6814—Width of jaws, 2 1/2 in. Will open 3 in. Ship. wt., 14 lbs. \$2.75

484E6815—Width of jaws, 3 1/2 in. Will open 4 1/2 in. Ship. wt., 19 lbs. \$3.95

484E6816—Width of jaws, 4 in. Will open 6 in. Ship. wt., 30 lbs. \$6.25



Made with a swivel base can be turned and fastened at any convenient angle. Milled and tempered steel jaws for holding pipe. Front pipe jaw is reversible and when worn can be reversed and thus have a new jaw.

484E6890—Jaws, 3 in. Takes 1/2 to 1 1/2 inch pipe. Ship. wt., 20 lbs. \$7.40

484E6891—Jaws, 3 1/2 in. Takes 3/4 to 2-inch pipe. Ship. wt., 30 lbs. \$9.95

484E6892—Jaws, 4 in. Takes 1 to 3-inch pipe. Ship. wt., 40 lbs. \$13.75

Malleable Iron Clamps

484E6900—Heavy malleable iron frame with clean cut threads with swivel head.

| Opens, in. | 4 | 5 | 6 | 8 | 10 |
|-----------------|-------|--------|--------|--------|--------|
| Ship. wt., lbs. | 1 1/2 | 2 1/4 | 2 3/4 | 4 | 5 1/2 |
| | 80c | \$1.00 | \$1.30 | \$2.00 | \$2.50 |

Wood Hand Screws

| Size | Diam. Screws, in. | Length Screws, in. | Size of Jaw, in. | Each |
|----------------|-------------------|--------------------|------------------|------|
| 1 1/4 to 2 1/2 | 3/8 | 10 | 1 1/2 x 1 1/2 | 55c |
| | 3/4 | 12 | 1 3/4 x 1 3/4 | 60c |
| | 7/8 | 14 | 1 7/8 x 1 7/8 | 70c |
| | 1 | 16 | 2 x 2 | 85c |
| | 1 1/8 | 16 | 2 1/2 x 2 1/2 | 95c |

Flooring Clamp

484E6918—For laying flooring and siding. Especially warped timber. Slides along a 2 in. joist, and clamps whenever lever is pushed against flooring. Malleable iron. Ship. wt., 2 1/2 lbs. \$2.80

Cabinet Clamp

484E6905—Fits wood h a r, 1 1/2 x 2 1/2 in. Heavy steel screw, sliding head, 1 1/2 in. sq. Adjustable. Bar not included. Ship. wt., 4 1/2 lbs. \$1.10

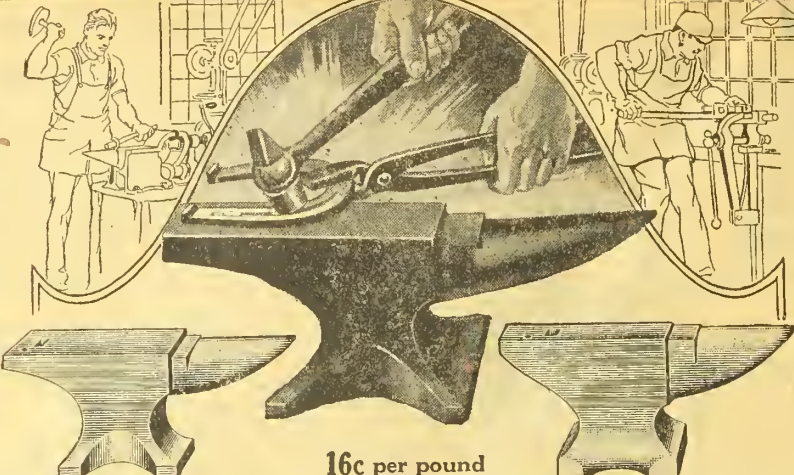
Hargraves Perfection Clamp

484E6910—Powerful, rapid acting. With steel bar, 1 1/2 x 1 1/2 inches; small iron parts, wrought screw.

| Length | Ship. Wt. | Each |
|--------|-----------|--------|
| 3 ft. | 8 lbs. | \$3.60 |
| 4 ft. | 9 lbs. | 3.95 |

Rubber Pads and Tips

484E7130—Rubber Hoof Pads with iron half shoes to fit. We include with each pad an iron tip to fit the front half of the hoof.



Handy Shop Anvil

184E6938—The face is one solid piece of tool steel welded to cast iron body by a patent process. Will not loosen. Accurately ground and tempered. Fitted with hole for anvil tools. The end of the horn is made entirely of tough untempered steel and the top is covered with steel. An excellent, well-shielded anvil. (Give weight.)

| Weight, 40 lbs. | \$6.45 |
|------------------|--------|
| Weight, 50 lbs. | 7.20 |
| Weight, 60 lbs. | 7.80 |
| Weight, 80 lbs. | 9.60 |
| Weight, 100 lbs. | 11.95 |

Lakeside American Wrought Anvil for the Expert Blacksmith

184E6930—Forged from best and toughest iron welded at waist, and faced with finest quality high-grade tool steel, carefully welded on and will not loosen. Face is hard and true, and tempered by a process which prevents the edges from chipping, giving a hard surface without being brittle. Shape is latest improved design, graceful and practical, and each anvil rings clear and true as a bell.

Should this anvil break at the waist or its steel face become loose within one year from date of purchase, it will be replaced without charge. We cannot always send exact weight, but will send the nearest we have to size wanted. Shipping weights are same as weights of anvils.

| Weight | 70 lbs. | 100 lbs. | 125 lbs. |
|--------|----------|----------|----------|
| | \$11.90 | \$16.00 | \$20.00 |
| Weight | 150 lbs. | 200 lbs. | |
| | \$24.00 | \$32.00 | |

Blacksmiths' Solid Box Vise

Heavy, properly proportioned, well made throughout. Solid thread box, with Steel Screw. Threads are deep and accurately cut. Loose collars prevent binding.

Steel-faced jaws, carefully hardened and tempered. Will stand most severe usage. Note—The number stamped on the Vise corresponds to its approximate weight. Shipping weight, same as size. (Prices subject to market changes.)

| Number | Size lbs. | Width of Jaw about | Each |
|----------|-----------|--------------------|--------|
| 184E6870 | 35 | 3 1/2 inches | \$5.95 |
| 184E6872 | 50 | 4 1/2 inches | 7.55 |
| 184E6873 | 70 | 5 1/2 inches | 9.95 |
| 184E6874 | 100 | 6 inches | 13.80 |

Combination Anvil, Vise and Drill

184E6864—A strong combination tool; easily operated. Drawbar is steel T-rail; will not break. Vise jaws are faced with steel. Face of anvil is case hardened, polished; has steel hardie. Capable of a wide range of work. Width of jaw, 3 1/2 in.; will open 6 in. Length closed, 21 1/2 inches. Total height, 8 1/2 in. Shipping weight, 44 pounds. Chuck fitted for drill bits with square shanks. (Without drill bits) \$4.48

Safety Horseshoe Calks

Steel Center Prevents Slipping 484E7140—Will give perfect satisfaction on any shoe. Hard steel center, always sharp Square shank, so they can be fastened or removed with an ordinary wrench. Sold only in boxes of 50 calks. (Give size.) See 484E7141 and 484E7142 for drills and taps.

| Size | Diam. threads | Fits Hole | Ship. wt. | Box of 50 |
|------|---------------|-----------|------------|-----------|
| A | 3/8 in. | 1 1/4 in. | 1 1/2 lbs. | \$.85 |
| B | 7/8 in. | 2 in. | 2 1/2 lbs. | 1.20 |
| C | 1 1/8 in. | 2 1/2 in. | 3 1/2 lbs. | 1.25 |
| D | 1 3/8 in. | 3 in. | 4 1/2 lbs. | 1.30 |
| E | 1 7/8 in. | 3 1/2 in. | 5 1/2 lbs. | 1.40 |

Drills for Screw Calks

484E7141—Tempered steel, with 1/2-inch round shank for blacksmith post drills. (Give size.) Ship. wt., 3 to 8 oz.

| Size Drill, in. | 1/16 | 3/32 | 1/8 | 5/16 |
|-----------------|------|------|-----|------|
| For Calks, in. | 3/8 | 7/16 | 1/2 | 5/8 |
| | 53c | 61c | 68c | 76c |

Taps for Screw Calks

484E7142—Tempered steel, with square head for regular tap wrench. (Give size.) Ship. wt., 3 to 8 oz.

| Size, in. | 3/8 | 7/16 | 1/2 | 5/8 |
|-----------|-----|------|-----|-----|
| | 43c | 53c | 56c | 65c |
| | | | | 72c |

Lakeside Horseshoe Nails

484E7135—Extra quality. Hot forged nails. Uniform shape and size. Made of the best nail rod and tempered right. A fine, well finished, high-grade nail. Country head. (Give size.)

| Size | Length in. | Per Lb. |
|------|------------|---------|
| 5 | 2 1/2 | 15c |
| 6 | 2 3/4 | 21c |
| 7 | 2 3/4 | 21c |
| 8 | 2 3/4 | 21c |
| 9 | 2 3/4 | 21c |

Standard Light Horseshoes

484E7110—In Sets. 184E7111—Front. In Kegs. 184E7112—Hind. In Kegs. 184E7113—Front and Hind. In Kegs. Ship. wt. per set for sizes 1 to 6, about 3 to 7 lbs. Ship. wt. per 100-lb. keg about 104 lbs.

| Size | Price Set of Four | Per 100 Lb. Keg |
|------|-------------------|-----------------|
| 1 | 24c | \$6.75 |
| 2 | 30c | 6.50 |
| 3 | 35c | 6.50 |
| 4 | 44c | 6.50 |
| 5 | 50c | 6.50 |
| 6 | 60c | 6.50 |



Handy Anvil Vise
\$1.98

484E6860—A popular low priced combination tool for the farmer or householder. Chilled flat iron anvil, with horn; vise with 3 in. chills, flat jaws and pipe jaws. Jaws open 3 1/2 in. A good tool but not intended for extra heavy work. Ship. wt., 28 pounds. Length, closed 16 in. \$1.98

Bench Vise

Made with cast iron frame painted black. Hardened steel faced jaws. A good vise for light or medium work.

| Article Number | Width Jaws | Ship. Wt. | Each |
|----------------|------------|-----------|--------|
| 484E6820 | 2 1/2 in. | 9 lbs. | \$2.75 |
| 484E6821 | 3 in. | 15 lbs. | 3.25 |
| 484E6822 | 4 in. | 32 lbs. | 6.95 |

Stanley Bench Vise

Stanley Vise. Extra quality. Finely fitted, and finished. 484E6846—Jaws 1 1/2 in. Will open 1 1/2 in. Ship. wt., 4 lbs. \$1.30

484E6847—Jaws 2 in. Will open 2 1/2 in. Ship. wt., 4 1/2 lbs. \$1.90

Small Clamp Vise

Clamps on table. Sliding rear jaw. Cast iron. Japan finish. 484E6840—Width of jaws, 1 1/2 in. Opens 1 1/2 in. Ship. wt., 2 lbs. 75c

484E6841—Width of jaws, 2 in. Opens 2 in. Ship. wt., 3 1/2 lbs. 98c

Malleable Pipe Vises

484E6880—Strong light weight Vise for holding pipe, rods, etc. Frame and base is malleable iron. Hardened steel jaws. Hinged joint on one side. Iron latch opens Vise to remove or insert pipe and holds frame rigid when closed. Holds pipe up to 2 in. pipe. Ship. wt., 7 lbs. \$2.48

Heavy Malleable Pipe Vise

Quick action Vise for holding pipe, rods, etc. Frame and base made of heavy Malleable iron hardened steel jaws. Holds base to screw to bench or table. 484E6881—Size 1 Takes 1/2 to 3/4 pipe. Ship. wt., 14 lbs. \$3.30

484E6882—Size 2 Takes 3/4 to 1 pipe. Ship. wt., 16 lbs. \$4.90

Hand Vises

484E6850—Substantially made of iron. Holds taps, drills, wire, etc. Width of jaws, 1 1/2 in. Will open 1/2 in. Ship. wt., 16 oz. 58c

Woodworkers' Vise

484E6830—Made of steel. Jaw moves one inch for every two turns of hardwood handle. Jaw is faced with hard maple. Width, 10 inches; opens 10 inches. Shipping weight, 16 pounds. \$3.80

Rapid Acting Vise for Woodworkers

Substantially made of steel and iron. Instantly adjusted and locked or released by a short turn of the lever. No pawls, racks or triggers to wear or break. By a slight reverse movement of handle, vise can be moved backward or forward without using screw. This prevents stripping or cutting of threads.

484E6832—Width, 10 inches. Opens 8 inches. Shipping weight, 27 pounds. \$6.90

Steel Bench Screws

484E6898—Steel screw cut threads with wood handle. Convenient for working up a workman's v on work bench.

| Diam. Average Length | Ship. Wt. lbs. | Each |
|----------------------|----------------|--------|
| 1 1/2 in. 16 in. | 4 1/2 | \$.78 |
| 1 1/2 in. 16 in. | 5 | .95 |
| 1 1/2 in. 17 in. | 6 1/2 | 1.15 |
| 1 1/2 in. 18 in. | 10 1/2 | 1.75 |

Horseshoers' Pritchel

84E7022—Forged steel 3/4-inch octagon. Length, about 10 inches. Shipping weight, 1 pound. 42c

Horseshoers' Buffer

84E7024—Forged steel oil finish. Shipping weight, 12 ounces. 65c

Farriers' Knife

84E7030—Wedge tenholm steel blade. Bone handle. Shipping weight 6 ounces. 65c

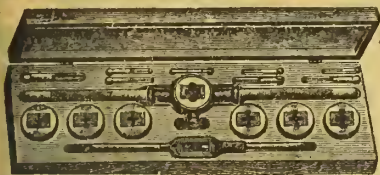
84E7031—Hel Bros. Bone hand. Shipping weight, about 4 ounces. 65c

A Perfect
Thread
with a
Single Cut

Screw Plates

for MACHINISTS and BLACKSMITHS

Durable
Easy Cutting
Clean Threads



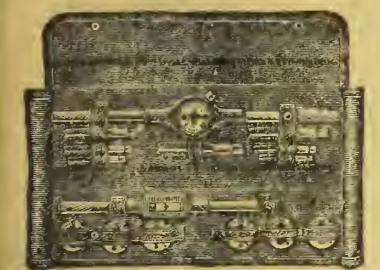
Card's Paragon
Screw Plates

Adjustable square split dies. Beautifully mottled stock, with hollow steel knurled handles. With dies and taper taps. Standard U. S. threads. With die stock and horsefield adjustable tap wrench. In handsome wood case. Dies and taps of special tool steel.

184E7325—Set No. 502. Cuts 5 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13 threads 16 $\frac{1}{2}$ in. stock. Ship. wt., about 8 $\frac{1}{2}$ lbs. **\$13.95**

184E7327—Set No. 504. Cuts 7 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10 threads. With 2 $\frac{1}{2}$ in. stock. Ship. wt., about 18 $\frac{1}{2}$ lbs. **\$19.95**

184E7327—Set No. 511. Cuts 9 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10, $\frac{1}{512}$ -9, 1-8 threads. Has two die stocks, 16 and 30 in. and two adjustable tap wrenches. Ship. wt., 31 lbs. **\$33.40**



Champion Easy Screw Plates

In black leatherette rolls so they may be conveniently carried in auto tool boxes for roadside repairs. Furnished with adjustable dies, which make a perfect thread at a single cut. Plug taps and tap wrench.

484E7320—No. 115. S. A. E. (A. L. A. M. thread). Cuts 7 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10 threads. Stock, 14 in. Ship. wt., 7 lbs. **\$16.40**

484E7321—No. 120. Especially adapted to Ford Model T Cars. Combination of S. A. E., U. S. and Machine Screw sizes. Cuts 16 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10, $\frac{1}{512}$ -9, 1-8 threads. Has two die stocks, 16 and 30 in. and two adjustable tap wrenches. Ship. wt., 31 lbs. **\$33.40**

Forged Steel Tap Wrench

Steel handles. Tempered steel jaws. For holding various size taps. To adjust, turn knurled part of handle. Finely polished.

84E7390—Length, 11 in. For taps $\frac{1}{8}$ to $\frac{1}{2}$ in. Ship. wt., 1 lb. **\$3.65**

84E7391—Length, 15 in. For taps $\frac{1}{4}$ to $\frac{1}{2}$ in. Ship. wt., 2 lbs. **\$4.25**

84E7392—Length, 20 in. For taps $\frac{1}{2}$ to 1 in. Ship. wt., 3 $\frac{1}{2}$ lbs. **\$5.25**

Hand Tap Wrench

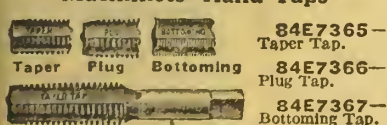
Polished steel with four-jawed chuck. 84E7384—For small taps up to $\frac{1}{8}$ in. Ship. wt., 4 oz. **30c**

84E7385—For taps up to $\frac{1}{2}$ in. Ship. wt., 8 oz. **45c**

Ratchet Tap Holder

84E7382—Excellent for hand use with small drills, taps, reamers, etc. Reversible ratchet. Two-jawed chuck holds to $\frac{1}{2}$ in. Polished steel, with polished hardwood handle. Length, about 5 in. Ship. wt., 6 oz. **\$1.60**

Machinists' Hand Taps

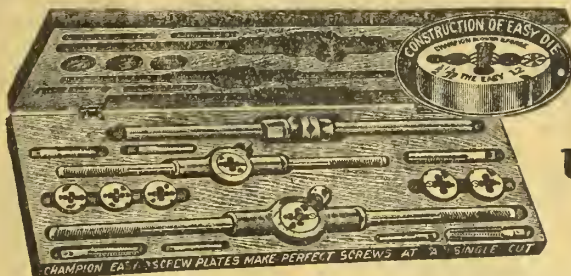


All three styles at same price. U. S. Standard thread, right hand. Finest tempered steel. Patent relieved to facilitate cutting. Ship. wt., 1 to 14 oz. Always mention style wanted, Taper, Plug or Bottoming. (Right hand threads only.)

| Size, in. | Threads to the Inch | Each |
|-----------------|---------------------|--------|
| $\frac{1}{16}$ | 24, 32 | \$.18 |
| $\frac{1}{8}$ | 20, 24, 32 | .24 |
| $\frac{1}{4}$ | 18, 20, 32 | .28 |
| $\frac{3}{8}$ | 16, 20 | .30 |
| $\frac{1}{2}$ | 14, 24 | .36 |
| $\frac{5}{8}$ | 12, 13, 24 | .42 |
| $\frac{3}{4}$ | 11, 12 | .48 |
| $\frac{7}{8}$ | 10, 12 | .56 |
| 1 | 9, 12 | .68 |
| 1 $\frac{1}{8}$ | 8, 12 | 1.20 |

Stove Bolt Taps

84E7370—
Size, in. $\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$
Thread. 24 18 16 16
15c 23c 25c 29c



Famous Champion Easy Screw Plates

Makes a perfect screw with a single cut. The dies are adjustable by means of a taper head screw with a taper nut, making them perfectly rigid and solid. Material and workmanship are of the very best. Dies and taps of special tool steel, finely tempered. Complete in handsome wood box with taper taps. Each set has a Champion Adjustable Tap Wrench, with a square socket to fit the shank of each size tap in the set. Holds tap firmly and always in the center.

184E7301—No. 1B. Cuts 5 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, U. S. Standard threads. Length of stock, 16 in. Ship. wt., 7 $\frac{1}{4}$ lbs. **\$9.75**

184E7302—No. 1 $\frac{1}{2}$ B. Cuts 5 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, U. S. Standard threads. Length of stock, 16 in. Ship. wt., 8 lbs. **\$10.50**

184E7304—No. 2B. Cuts 5 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, U. S. Standard threads. Has two stocks, one 15 $\frac{1}{2}$ in. and one 23 in. long. Shipping weight, 14 lbs. **\$14.50**

184E7305—No. 5B. Cuts 7 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10 threads. With two stocks, sizes 16 and 23 in., and taper taps. U. S. Standard threads. Ship. wt., 16 lbs. **\$15.75**

184E7306—No. 7B. Cuts 9 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10, $\frac{1}{512}$ -9, 1 in. 8 U. S. Standard threads. Has two stocks, one 16 in. and one 29 in. long. Ship. wt., 19 lbs. **\$24.80**

184E7307—No. 9B. Cuts 10 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10, $\frac{1}{512}$ -9, 1 in. 8 U. S. Standard threads. Has two stocks, one 16 $\frac{1}{2}$ in. and one 29 in. in length. Ship. wt., about 10 $\frac{1}{2}$ lbs. **\$26.40**

Easy Combination Auto and Repair Shop Screw Plate

184E7308—No. 11. With 10 dies and taps cutting both Standard U. S. threads and S. A. E. Automobile Standard threads. Cuts 5 sizes U. S. Standard: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13 threads, and 5 sizes S. A. E.: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -24, $\frac{1}{32}$ -24, $\frac{1}{64}$ -24 threads. Has one stock, length, 15 $\frac{1}{2}$ in. and an adjustable tap wrench. Complete in hardwood box with taps. A fine set for the garage or repair shop. Ship. wt., about 10 $\frac{1}{2}$ lbs. **\$16.50**



Card's Split Die Screw Plates

The dies are made in two parts, allowing a large range of sizes to be cut with one die. With taper taps. In a neat hardwood case. Dies and taps of special tool steel U. S. Standard threads.

84E7330—No. 2 $\frac{1}{2}$ C. Length, 11 $\frac{1}{2}$ in. 5 pair dies and 5 taps, cutting $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13. Ship. wt., about 2 $\frac{1}{2}$ lbs. **\$7.65**

84E7331—No. 3D. Length, 14 in. 6 pair dies and 6 taps, cutting $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13. Ship. wt., about 4 $\frac{1}{2}$ lbs. **\$9.95**

84E7332—No. 4B. Length, 19 in. 7 dies and taps, cutting $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11. Ship. wt., about 8 lbs. **\$14.25**

Card's Diamond Screw Plates

Card's Diamond Screw Plates with round adjustable dies, plug taps and adjustable tap wrench. Complete in finished hardwood box.

84E7340—Set A with 5-in. stock. Cuts machine screw sizes, 4-32, 6-32, 8-32, 10-24, 12-24, 14-20. Tap wrench, length, 5 in. Has 6 dies and 6 taps. Ship. wt., about 1 lb. **\$5.75**

84E7342—Set R. Stock, length, 7 in. Tap wrench, length, 7 $\frac{1}{2}$ in. Has 6 dies and 6 taps, U. S. Standard threads, cutting as follows: $\frac{1}{4}$ -20 thread, $\frac{1}{8}$ -32 thread, $\frac{1}{16}$ -24 thread, $\frac{1}{32}$ -24 thread, $\frac{1}{64}$ -20 thread, $\frac{1}{128}$ -18 thread. Ship. wt., about 1 $\frac{1}{2}$ lbs. **\$7.25**

84E7344—Set S. Stock, length, 7 in. Tap wrench, length, 7 $\frac{1}{2}$ in. Has 5 dies and 5 taps, cutting as follows: $\frac{1}{4}$ -20 thread, $\frac{1}{8}$ -40 thread, $\frac{1}{16}$ -24 thread, $\frac{1}{32}$ -20 thread, $\frac{1}{64}$ -18 thread. Ship. wt., about 1 $\frac{1}{2}$ lbs. **\$6.90**

Blacksmiths' Stocks and Dies

Our Blacksmiths' Stocks and Dies are made by one of the oldest and best manufacturers in the country, and exactly as represented. The stocks are all full polished, nicely finished, and each set is packed complete in a box. The Dies and Taps are made from a high-grade special steel, all carefully hardened and tempered.

Please Note: We can furnish these stocks and dies in Sizes, Threads and Assortments only as listed.

| Article Number | Cuts to Inch | Threads to Inch Right Hand | Taps in Set | No. Dies in Set | Factory No. | Ship. Wt., Pounds | Per Set |
|----------------|--------------------------------|----------------------------|-------------|-----------------|-------------|-------------------|---------|
| 84E7350 | $\frac{1}{8}$ to $\frac{1}{4}$ | 18, 24, 32 | 4 | 3 | 55 | 1 $\frac{1}{2}$ | \$2.98 |
| 84E7351 | $\frac{1}{4}$ to $\frac{1}{2}$ | 16, 20, 24, 32 | 4 | 3 | 53 | 1 $\frac{1}{2}$ | 3.75 |
| 84E7352 | $\frac{1}{2}$ to $\frac{3}{4}$ | 16, 20, 24 | 4 | 3 | 41 | 2 | 4.50 |
| 84E7353 | $\frac{3}{4}$ to 1 | 12, 14, 16 | 6 | 3 | 41C | 3 | 5.25 |
| 84E7354 | $\frac{1}{8}$ to $\frac{1}{4}$ | 12, 14, 16 | 6 | 3 | 37A | 4 | 5.50 |
| 84E7355 | $\frac{1}{4}$ to $\frac{1}{2}$ | 11, 12, 16 | 6 | 3 | 37C | 4 | 5.90 |
| 84E7356 | $\frac{1}{2}$ to $\frac{3}{4}$ | 10, 12, 14, 16 | 6 | 4 | 32B | 5 | 6.85 |
| 84E7357 | $\frac{3}{4}$ to 1 | 10, 12, 16 | 3 | 3 | 34 | 5 | 6.95 |
| 84E7358 | 1 to 1 $\frac{1}{2}$ | 8, 10, 12 | 3 | 3 | 23A | 7 $\frac{1}{2}$ | 9.50 |
| 84E7359 | $\frac{1}{2}$ to $\frac{3}{4}$ | 8, 10, 12, 14, 18 | 6 | 3 | 60 | 5 | 9.50 |
| 84E7360 | 1 to 1 $\frac{1}{2}$ | 8, 9, 10, 11 | 4 | 4 | 19B | 10 | 10.25 |



Pipe Taps

84E7374—With standard pipe threads. Right hand. Best grade tool steel. Made in sizes to correspond with pipe measurements that is a $\frac{1}{2}$ tap will thread a fitting or opening taking pipe measuring $\frac{1}{4}$ in. inside diameter. Shipping weights range from 4 ounces to 4 $\frac{1}{2}$ pounds.

Size... $\frac{1}{8}$ 35c $\frac{1}{4}$ 44c $\frac{3}{8}$ 68c

Size... $\frac{1}{2}$ 73c $\frac{3}{4}$ \$1.00

Size... 1 \$1.60 1 $\frac{1}{2}$ \$1.85

Size... 1 $\frac{3}{4}$ \$2.45 2 \$3.65

Madison, Indiana.

Gentlemen:

The "Lakeside" Saw is one of the best I ever had. I have used six other standard makes but the Lakeside beats them all.

Yours very truly,

C. J. Gaskill.

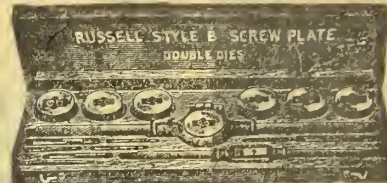
Letter printed by customer's permission.

Steel Wire Flue Brush

84E7560—For cleaning boiler flues. Length, about 8 inches. Shipping weight, 6 to 16 ounces. Note: Give the outside diameter of tube, (not inside diam.). Boiler tubes always measured outside diam.

Size... 1 $\frac{1}{2}$ 25c 2 28c

Size... 2 $\frac{1}{2}$ 35c 3 40c 4 45c



Russell Screw Plates

Two-piece dies, held rigidly in a solid collet. Adjustable by two set screws. Perfect threads with one cut. Zero marks on top of die and collet for perfect adjustment of each half. With taper taps, dies and 2 $\frac{1}{2}$ -in. collets. U. S. Standard thread. With die stock, adjustable tap wrench, and bit brace holder. Dies and taps of special tool steel. In handsome wood case.

184E7310—Cuts 5 sizes: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13 threads. Ship. wt., about 12 lbs. **\$12.95**

184E7311—Cuts 5 sizes: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13 threads. Ship. wt., about 14 lbs. **\$16.50**

184E7312—Cuts 7 sizes: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10 threads. Ship. wt., about 16 lbs. **\$19.75**

184E7313—Cuts 9 sizes: $\frac{1}{4}$ -20, $\frac{1}{8}$ -18, $\frac{1}{16}$ -16, $\frac{1}{32}$ -14, $\frac{1}{64}$ -13, $\frac{1}{128}$ -11, $\frac{1}{256}$ -10, $\frac{1}{512}$ -9, 1-8 threads. Ship. wt., about 20 lbs. **\$29.75**



Diamond Automobile Screw Plates

184E7335—Set No. 5. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7336—Set No. 6. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7337—Set No. 7. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7338—Set No. 8. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7339—Set No. 9. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

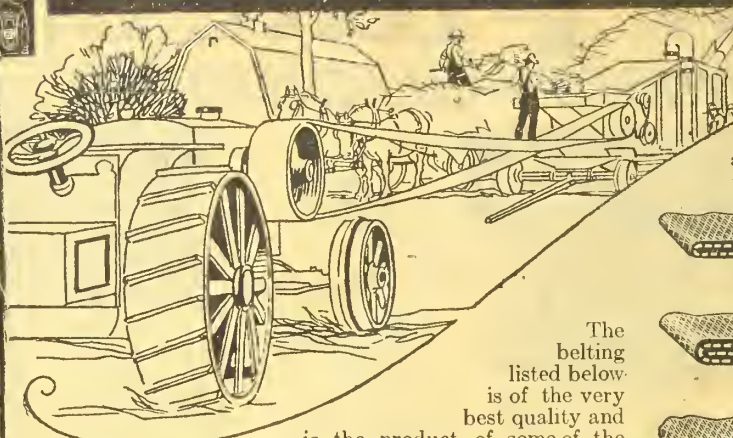
184E7340—Set No. 10. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7341—Set No. 11. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7342—Set No. 12. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3-48, 4-36, 6-32, 8-32, 10-24, 12-24, 14-20, 16-18, 18-16, machine screw sizes: $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18, $\frac{1}{64}$ -16, $\frac{1}{128}$ -14, $\frac{1}{256}$ -12, U. S. Standard threads: $\frac{1}{4}$ -28, $\frac{1}{8}$ -24, $\frac{1}{16}$ -20, $\frac{1}{32}$ -18 and $\frac{1}{64}$ -18, S. A. E. Standard threads. All complete in hardwood case. Ship. wt., 10 lbs. **\$32.25**

184E7343—Set No. 13. Covers a wide assortment of machine screws, U. S. Standard, and S. A. E. Standard sizes. Has 23 dies and taps, 2 stocks, and 2 tap wrenches. Cuts 2-56, 3

Canvas, Rubber and Leather Belting



The belting listed below is of the very best quality and is the product of some of the oldest and best manufacturers in the country. We carefully guard the quality and workmanship, and we know it will give you perfect satisfaction.

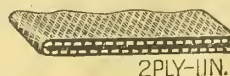
How to Order Special Endless Belt

Any special length belts not listed here are made to order only and require two or three weeks to make at the factory. Include the price of seven feet of the belt for the cost of making the lap.

For example, if you want an endless belt 100 feet long, send money enough for 107 feet. Be sure and give the net length of belt you want, after being made endless, and allow price of 7 feet extra for making the lap. Use the following order numbers:

384 E 7687—Endless Rubber Belts. Made in Extra Standard grade and "Red-man" brands only.

384 E 7693—Endless Canvas Belts. Made in four or six ply. See 184E7700 and 184E7702 for stock lengths. Special Endless Belts are shipped from Illinois Factory.



2PLY-1IN.



3PLY-1½IN.



4PLY-2IN.

Red Friction Surface Rubber Belting

Our "Red-Man" brand is the very highest grade of rubber belting. Use this belt for heavy duty, high speeds and on small diameter pulleys and you will get longer, better and more economical service than from any other kind of belting. The belting is red in color to distinguish it from ordinary belting and is sold with our full guarantee to give entire satisfaction under the most severe usage. It is constructed of a tough and closely woven cotton duck, with a high grade friction between the plies and a friction surface which absolutely takes hold of the pulleys with a full contact from edge to edge. The friction compound is forced into the fabric under great pressure, the plies will not separate, and all the undesirable stretch is taken out of the belt.

| | | | | |
|---------------------------|--------|--------|--------|--------|
| 384E7694—Four-ply. | 2 | 3 | 4 | 5 |
| Width, inches..... | 2 | 3 | 4 | 5 |
| Weight, foot, about..... | 5 oz. | 6 oz. | 7 oz. | 8 oz. |
| Price, foot..... | 24c | 34c | 44c | 55c |
| Width, inches..... | 6 | 7 | 8 | 10 |
| Weight, foot, about..... | 10 oz. | 12 oz. | 14 oz. | 16 oz. |
| Price, foot..... | 65c | 77c | 83c | \$1.03 |

Standard Grade Rubber Belting

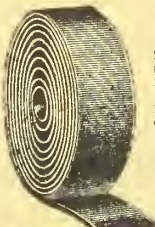
Our Standard grade is a very good quality and gives good satisfaction on light farm machinery, but not suitable for endless thresher belts.

| | | | | |
|--|---------|---------|---------|---------|
| 384E7680—2-Ply. Ship. wt., ft. 5 to 9 oz. | 2 | 3 | 4 | 5 |
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Foot..... | 6c | 8c | 9 1/2c | 12c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 14 1/2c | 17 1/2c | 20 1/2c | 22c |
| 384E7681—3-Ply. Ship. wt., ft. 8 to 18 oz. | 2 | 3 | 4 | 5 |
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Foot..... | 11c | 14c | 17c | 20c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 23 1/2c | 25c | 31c | 37 1/2c |
| 384E7682—4-Ply. Ship. wt., ft. 10 to 30 oz. | 2 | 3 | 4 | 5 |
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Foot..... | 23c | 27c | 29c | 33c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 38c | 44c | 52c | 56c |
| Width, inches..... | 3 | 4 | 5 | 6 |
| Foot..... | 62c | 69c | 83c | |

Extra Standard Grade Rubber Belting

Our Extra Standard Belt is suitable for all kind hard service, and represents extra good value at low price.

| | | | | |
|--|--------|-------|---------|-----|
| 384E7683—2-Ply. Ship. wt., ft. 5 to 10 oz. | 2 | 3 | 4 | 5 |
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Foot..... | 7 1/2c | 10c | 11 1/2c | 14c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 18c | 21c | 24c | 26c |
| 384E7684—3-Ply. Ship. wt., ft. 8 to 20 oz. | 2 | 3 | 4 | 5 |
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Foot..... | 13c | 17c | 20 1/2c | 23c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 28c | 30c | 37c | 40c |
| 384E7685—4-Ply. Ship. wt., ft. 12 to 36 oz. | 2 | 3 | 4 | 5 |
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Foot..... | 28c | 32c | 35c | 40c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 45c | 52c | 61c | 66c |
| Width, inches..... | 3 | 4 | 5 | 6 |
| Foot..... | 74c | 83c | 98c | |



Leather Belting

Standard Grade is a good medium quality. Will give good satisfaction. For ordinary mill, factory and farm machinery.

Extra Standard Grade is made from selected, short lap, oak tanned stock, cut from the center of the hide. Recommended for thresher belts, high-speed pulleys, and for hard factory or mill usage.

If belts are wanted, endless, state actual length of belt wanted after splicing, and allow price of 3 ft. of belt extra for lap and labor of splicing.

Notice—In very damp or wet places, use rubber or stitched canvas belting.

| | | | | |
|--|---------|---------|---------|-------|
| 384E7704—Standard Grade. | 2 | 3 | 4 | 5 |
| Ship. wt., per foot, about 5 to 10 oz. | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Width, in..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Per foot..... | 10c | 12 1/2c | 15 1/2c | 18c |
| Width, in..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 23c | 25c | 30c | 35c |
| 384E7705—Extra Standard Grade. | 2 | 3 | 4 | 5 |
| Ship. wt., per foot, about 5 to 18 oz. | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Width, in..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Per foot..... | 13c | 17c | 21c | 24c |
| Width, in..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Per foot..... | 30 1/2c | 34c | 41c | 47c |
| Width, in..... | 4 1/2 | 5 1/2 | 6 1/2 | 7 1/2 |
| Foot..... | 61c | 68 1/2c | 82c | 95c |

Red Stitched Canvas Belting

High Grade—Full Weight

Our Stitched Canvas Belting is unaffected by atmospheric changes, uninjured by water or steam, and may be subjected to a degree of heat that would be ruinous to other kinds of belting. It is therefore the best belting for outdoor use and for damp or hot places. Made of long fibre cotton duck, carefully and closely stitched. Thoroughly stretched and inspected. Thoroughly saturated in oil, which makes it permanently water-proof and flexible. Covered with a special red paint which gives the belt an excellent, non-slipping surface. Always remains flexible in hot or cold weather.

| | | | | |
|-----------------------------------|--------|-------|-------|-----|
| 384E7690—Four Ply Belting. | 2 | 3 | 4 | 5 |
| Ship. wt., per ft. 2 to 17 oz. | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Width, in..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Per foot..... | 6 1/2c | 9c | 11c | 13c |
| Width, in..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 15c | 17c | 20c | 22c |
| 384E7692—Six-Ply Belting. | 2 | 3 | 4 | 5 |
| Ship. wt., per ft. 6 to 25 oz. | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Width, in..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Per foot..... | 19c | 25c | 30c | 36c |
| Width, in..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Foot..... | 36c | 47c | 50c | 54c |



Endless Canvas Thresher Belts

Made in the same manner as our Red stitched canvas belting. Especially adapted for threshers, saw mills, stone crushers, and similar severe uses. It requires three feet to make the lap, therefore, each belt will measure just three feet short. For example, the actual net length of a 100-ft. belt will be 97 ft. We carry in stock for prompt shipment, the following standard lengths and sizes.

| | | | |
|--|-------------|-------------|-------------|
| 184E7700—Four-ply Belts. | 6 in. Width | 7 in. Width | 8 in. Width |
| Ship. wt., per foot: 6 in., 11 oz.; 7 in., 12 oz.; 8 in., 14 oz. | | | |
| Length | 6 in. Width | 7 in. Width | 8 in. Width |
| 50 ft. | \$12.80 | \$14.60 | \$16.40 |
| 75 ft. | 18.80 | 21.55 | 24.00 |
| 100 ft. | 24.75 | 27.90 | 31.70 |
| 125 ft. | 30.60 | 34.90 | 39.40 |
| 150 ft. | 36.60 | 41.60 | 46.80 |
| 184E7702—Five-Ply Belts | | | |
| Width | Ship. Foot | Length | Length |
| 7 in. | 14 oz. | \$43.65 | \$52.00 |
| 8 in. | 16 oz. | 49.00 | 58.75 |

Chrome Side Lace



384 E 7726—Extra strong and durable. Soft and pliable. Not affected by heat, water or acid. Can supply only full sides. Prices subject to change.

| | | |
|------------|------------|--------|
| Trade size | Ship. wt. | Side |
| about | about | |
| 8 sq. ft. | 2 lbs. | \$2.25 |
| 10 sq. ft. | 2 1/2 lbs. | 2.85 |
| 12 sq. ft. | 3 lbs. | 3.40 |

Chrome Cut Lace

384 E 7724—Same quality as side lace leather listed above. In full bundles of 50 lineal feet. Shipping weight, 6 to 16 ounces.

| | | | | |
|--------------------|-------|--------|--------|--------|
| Width, inches..... | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| Bundle..... | 40c | 47c | 54c | 61c |
| Width, inches..... | 2 1/4 | 3 | 3 1/4 | 4 |
| Bundle..... | 59c | 74c | 89c | 104c |
| Width, inches..... | 4 1/2 | 5 1/2 | 6 1/2 | 7 1/2 |
| Bundle..... | 95c | \$1.22 | \$1.49 | \$1.76 |

384 E 7725—Assorted package of 50 feet.

Bundle..... 54c

Counting Machine

384E1855 Tallies from 1 to 1,000 by pressing with the thumb. Can be set at zero at will. Glass dial. Nickel-plated. Ship. wt. about 6 oz. Each..... \$3.85

Wire Belt Lace

384 E 7731—Soft strong composition wire. In coils of about 50 feet. Shipping weight, about 6 ounces. Size 1. For belts 1 to 6 inches. 30c

Size 2. For belts 6 to 20 inches. 33c

Steel Belt Lacing



(In Use)

384E7734—Strong and quickly clinched. In boxes of 100 lineal in. Assorted lengths, 1 1/4 to 2 1/4 in. Ship. wt. 2 to 4 lbs.

Size 1. For single leather belts. Width, 1/4 in. Box..... \$.96

Size 1 1/4. For 3-ply rubber belts. Width, 3/4 in. Box..... \$1.05

Size 1 1/2. For 4-ply belts. Width, 1 1/4 in. Box..... \$1.40

Size 1 3/4. For 5-ply belts. Width, 1 3/4 in. Box..... \$2.10

Belt Lace Cutter

384 E 7730—Cast iron frame. Steel knife. For cutting leather into strips. Adjustable to various widths. Ship. wt. 6 oz. Each..... 39c

Steel Clinch Belt Hooks

Made of best annealed steel wire. Will not break in clinching. For leather, rubber or canvas belting. In boxes containing 200 hooks.

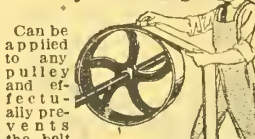
| | | | |
|----------|---------|--------|-----------|
| Article | Prong | Length | Ship. Box |
| Number | Length | 1 in. | 200 |
| 384E7750 | 1/2 in. | 3/4 | 7 oz. |
| 384E7751 | 1/2 in. | 1 | 10 oz. |
| 384E7752 | 1/2 in. | 1 1/4 | 1 lb. |
| 384E7753 | 1/2 in. | 1 1/2 | 1 lb. |

Steel-Ball Belt Coupler

384E7738—Fastened with bifurcated rivets. Connected by steel ball spindles. In boxes of 96 lineal inches. In 12 in. pieces, easily cut. Ship. wt., 3 to 3 1/2 lbs.

| | | |
|------|-----------------|--------|
| Size | For Belt Thick. | Box |
| A | 3/4 in. | \$.90 |
| B | 1 in. | 1.08 |
| C | 1 1/4 in. | 1.35 |

Canvas Pulley Covering



Can be applied to any pulley. Effectually prevents the belt from slipping. Each outfit is complete with canvas cement for applying, brush for cleaning pulley, brush, and scraper for applying the cover.

384E7760—For 10 sq. ft. pulley surface. Ship. wt. \$3.98

6 pounds. Price..... \$3.98

384E7761—For 20 sq. ft. pulley surface. Ship. wt. 12 pounds. Price..... \$7.65

Speed Indicators



\$2.48

384E1862—Goodell-Pratt's make. Has two dials. One records the units, one the hundreds. Dial for hundreds has friction ratchet and is quickly reset. Double end spindle. Handle slips on either end for right or left hand shafts. Steel, nickel-plated. Two rubber tips. Ship. wt. 12 oz. Each..... \$2.48

Square Jute Packing

384E7780—Long fiber jute. Well lubricated. Used in pumps and hydraulic elevators. Sizes, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 24, 30, 36, 42, 48, 60, 72, 84, 96, 108, 120, 144, 168, 192, 216, 240, 270, 300, 324, 360, 396, 432, 468, 504, 540, 576, 612, 648, 684, 720, 756, 792, 828, 864, 900, 936, 972, 1008, 1044, 1080, 1116, 1152, 1188, 1224, 1260, 1296, 1332, 1368, 1404, 1440, 1476, 1512, 1548, 1584, 1620, 1656, 1692, 1728, 1764, 1800, 1836, 1872, 1908, 1944, 1980, 2016, 2052, 2088, 2124, 2160, 2196, 2232, 2268, 2304, 2340, 2376, 2412, 2448, 2484, 2520, 2556, 2592, 2628, 2664, 2700, 2736, 2772, 2808, 2844, 2880, 2916, 2952, 2988, 3024, 3060, 3096, 3132, 3168, 3204, 3240, 3276, 3312, 3348, 3384, 3420, 3456, 3492, 3528, 3564, 3600, 3636, 3672, 3708, 3744, 3780, 3816, 3852, 3888, 3924, 3960, 3996, 4032, 4068, 4104, 4140, 4176, 4212, 4248, 4284, 4320, 4356, 4392, 4428, 4464, 4500, 4536, 4572, 4608, 4644, 4680, 4716, 4752, 4788, 4824, 4860, 4896, 4932, 4968, 5004, 5040, 5076, 5112, 5148, 5184, 5220, 5256, 5292, 5328, 5364, 5400, 5436, 5472, 5508, 5544, 5580, 5616, 5652, 5688, 5724, 5760, 5796, 5832, 5868, 5904, 5940, 5976, 6012, 6048, 6084, 6120, 6156, 6192, 6228, 6264, 6300, 6336, 6372, 6408, 6444, 6480, 6516, 6552, 6588, 6624, 6660, 6696, 6732, 6768, 6804, 6840, 6876, 6912, 6948, 6984, 7020, 7056, 7092, 7128, 7164, 7200, 7236, 7272, 7308, 7344, 7380, 7416, 7452, 7488, 7524, 7560, 7596, 7632, 7668, 7704, 7740, 7776, 7812, 7848, 7884, 7920, 7956, 7992, 8028, 8064, 8100, 8136, 8172, 8208, 8244, 8280, 8316, 8352, 8388, 8424, 8460, 8496, 8532, 8568, 8604, 8640, 8676, 8712, 8748, 8784, 8820, 8856, 8892, 8928, 8964, 9000, 9036, 9072, 9108, 9144, 9180, 9216, 9252, 9288, 9324, 9360, 9396, 9432, 9468, 9504, 9540, 9576, 9612, 9648, 9684, 9720, 9756, 9792, 9828, 9864, 9900, 9936, 9972, 10008, 10044, 10080, 10116, 10152, 10188, 10224, 10260, 10296, 10332, 10368, 10404, 10440, 10476, 10512, 10548, 10584, 10620, 10656, 10692, 10728, 10764, 10800, 10836, 10872, 10908, 10944, 10980, 11016, 11052, 11088, 11124, 11160, 11196, 11232, 11268, 11304, 11340, 11376, 11412, 11448, 11484, 11520, 11556, 11592, 11628, 11664, 11700, 11736, 11772, 11808, 11844, 11880, 11916, 11952, 11988, 12024, 12060, 12096, 12132, 12168, 12204, 12240, 12276, 12312, 12348, 12384, 12420, 12456, 12492, 12528, 12564, 12600, 12636, 12672, 12708, 12744, 12780, 12816, 12852, 12888, 12924, 12960, 12996, 13032, 13068, 13104, 13140, 13176, 13212, 13248, 13284, 13320, 13356, 13392, 13428, 13464, 13500, 13536, 13572, 13608, 13644, 13680, 13716, 13752, 13788, 13824, 13860, 13896, 13932, 13968, 14004, 14040, 14076, 14112, 14148, 14184, 14220, 14256, 14292, 14328, 14364, 14400, 14436, 14472, 14508, 14544, 14580, 14616, 14652, 14688, 14724, 14760, 14796, 14832, 14868, 14904, 14940, 14976, 15012, 15048, 15084, 15120, 15156, 15192, 15228, 15264, 15300, 15336, 15372, 15408, 15444, 15480, 15516, 15552, 15588, 15624, 15660, 15696, 15732, 15768, 15804, 15840, 15876, 15912, 15948, 15984, 16020, 16056, 16092, 16128, 16164, 16200, 16236, 16272, 16308, 16344, 16380, 16416, 16452, 16488, 16524, 16560, 16596, 16632, 16668, 16704, 16740, 16776, 16812, 16848, 16884, 16920, 16956, 16992, 17028, 17064, 17100, 17136, 17172, 17208, 17244, 17280, 17316, 17352, 17388, 17424, 17460, 17496, 17532, 17568, 17604, 17640, 17676, 17712, 17748, 17784, 17820, 17856, 17892, 17928, 17964, 18000, 18036, 18072, 18108, 18144, 18180, 18216, 18252, 18288, 18324, 18360, 18396, 18432, 18468, 18504, 18540, 18576, 18

Shafting and Engine Accessories

Cold Rolled Steel Shafting

Every bar straight and true to size. U. S. Standard. Prices are for shafts 5 ft. to 18 ft. long. Less than 5 ft. we charge for cutting at the rate of 35c per cut. Prices Subject to Market Changes. Steel shafting can be cut any length not exceeding 18 feet and will be shipped about 5 days after order is received.

384E7625

| Size | Weight per ft. | Price per ft. |
|-----------|----------------|---------------|
| 1 in. | 2 1/4 lbs. | 20c |
| 1 1/4 in. | 3 1/4 lbs. | 32c |
| 1 1/2 in. | 6 lbs. | 45c |



Wood Split Pulleys

All our wood split pulleys are made of select straight grained kiln-dried hardwood. Properly nailed and glued together. Bushing turned both inside and out. Sizes, 10 in. and under have no spokes.

They are standard throughout. Can be used with satisfaction any place where a leather belt can be used.

Be sure to state diameter and width of face and bore or size of shaft.

284E7630

| Diam. In. | Face In. | Weight Lbs. | Price |
|-----------|----------|-------------|--------|
| 3 | 3 | 1/2 | \$1.96 |
| 3 | 4 | 3/4 | 2.03 |
| 3 | 6 | 1 | 2.31 |
| 4 | 4 | 3/4 | 1.96 |
| 4 | 6 | 1 | 2.03 |
| 4 | 8 | 1 1/2 | 2.31 |
| 6 | 6 | 3 | 2.03 |
| 6 | 8 | 4 1/2 | 2.10 |
| 8 | 8 | 6 | 2.45 |
| 8 | 10 | 8 | 2.17 |
| 10 | 10 | 12 | 2.59 |
| 10 | 12 | 16 | 2.38 |
| 12 | 12 | 24 | 2.80 |
| 12 | 14 | 30 | 3.43 |
| 14 | 14 | 48 | 3.99 |
| 16 | 16 | 72 | 4.55 |
| 18 | 18 | 108 | 5.11 |
| 20 | 20 | 180 | 5.67 |



Plain Cast Iron Pulleys

Bored for 1 or 1 1/4 in. Shaft Only.

Made of close grained gray iron with straight cast face, bored for 1 or 1 1/4 inch shaft only; held in place by set screw. Be sure to state which bore when ordering. Cannot furnish in other size bores.

184E7632—(State which bore, also size).

| Size | Weight | Price |
|--------------|------------|--------|
| 3x4 in. | 5 lbs. | \$1.35 |
| 4x4 in. | 6 lbs. | 1.53 |
| 6x4 in. | 9 1/2 lbs. | 1.84 |
| 8x4 in. | 11 lbs. | 2.20 |
| 10x4 in. | 15 lbs. | 2.57 |
| 12x2 1/2 in. | 16 lbs. | 2.64 |
| 12x4 in. | 18 lbs. | 2.97 |
| 14x4 in. | 23 lbs. | 3.41 |
| 16x4 1/2 in. | 28 lbs. | 4.25 |



Line Shaft Outfit

Our Universal Line Shaft Outfit will transmit 2 1/2 H. P., and will drive your cream separator, churn, pump jack and washing machine independent of each other, or all together, at the proper rates of speed, without changing the speed of your engine. With this speed governing line shaft outfit you can run several light machines at various speeds from the same engine or motor. A turn of the hand wheel will stop the shaft while the engine continues running. A turn of the hand wheel in the reverse direction will start the shaft and it will pick up speed gradually.

Each outfit consists of shaft, 1 in. in diameter, speed governor with 9x6 drive pulley, one 4x3, one 6x2 1/2, and one 8x2 1/2 in. pulley; all mounted on a substantial 2-in. plank and supported by three hangers. Grease cups provide lubrication. Shaft can be driven at a speed of from 200 to 300 r. p. m. Speed of pulleys can be varied from 50 to 300 r. p. m. No belt is included in the price.

Shipped from Factory in Iowa.

| | | |
|---|---------------------------------|---------|
| 284E7600—6-ft. Line Shaft Outfit as above described. | Shipping weight, about 110 lbs. | \$21.85 |
| 284E7601—8-ft. Line Shaft Outfit as above described. | Shipping weight, about 115 lbs. | 22.55 |
| 284E7602—12-ft. Line Shaft Outfit as above described. | Shipping weight, about 125 lbs. | 28.15 |



Post Hangers

Split journal post box well babbitted. Adjustable by bolt slots.

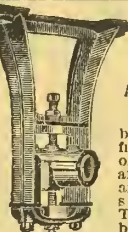
| For Shaft In. | Wt. Lbs. | Price Each |
|---------------|----------|------------|
| 1 | 3 | \$1.43 |
| 1 1/4 | 4 | 1.62 |
| 1 1/2 | 5 | 2.05 |



Split Pillow Blocks

Cast iron and babbitted, with base bolt adjusting slots. Ship. wt., 3 to 5 1/2 lbs.

| Shafts, in. | 1 1/4 | 1 1/2 |
|-------------|-------|------------|
| Each... | .75c | 90c \$1.20 |



Ball and Socket Hanger Adjustable

Double braced, full weight of standard design and great strength. They have babbitted boxes, are adjustable and can be turned upside down and used as floor stand.

| Bore In. | Ship. Lbs. | Price |
|----------|------------|--------|
| 1 1/2 | 13 | \$2.10 |
| 1 3/4 | 14 | 2.25 |
| 2 | 15 | 2.45 |
| 2 1/2 | 20 | \$2.65 |
| 3 | 21 | 2.87 |
| 3 1/2 | 22 | 3.10 |



Shaft Collar

Cast iron with Howe set screw on center. Fits on each side. Wt., 1 and 1 1/4 in. size, 1 1/2 lbs. 1 1/2 in. size, 1 1/2 lbs.

| For shaft, in. | 1 1/4 | 1 1/2 |
|----------------|-------|---------|
| Price..... | 24c | 30c 38c |



Sleeve Coupling

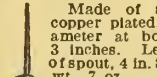
For joining shafting with two set screws. In sockets, not projecting. Ship. wt., 7 ounces.

| Shaft Size In. | Wt. Lbs. | Price |
|----------------|----------|--------|
| 1 | 3 1/4 | \$1.50 |
| 1 1/4 | 5 1/2 | 2.10 |
| 1 1/2 | 8 | 2.40 |



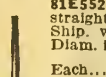
Bright tin with 4-inch spouts. Diam. at bottom, 3 in. Ship. wt., 7 ounces.

| 81E5530—Bent spout. Each..... | 12c |
|-----------------------------------|-----|
| 81E5531—Straight spout. Each..... | 12c |



Made of steel, copper plated. Diameter at bottom 3 inches. Length of spout, 4 in. Ship. wt., 7 oz.

| 81E5528—3-in. straight spout. Ship. wt., 7 oz. | Each.... 20c 32c |
|--|------------------|
| 81E5529—9-in. bent spout. Diam. in. 3 1/2, 4. | Each.... 22c 39c |



81E5528—3-in. straight spout. Ship. wt., 7 oz.

| 81E5529—9-in. bent spout. Diam. in. 3 1/2, 4. | Each.... 22c 39c |
|---|------------------|
|---|------------------|



Genuine Lidseen Force Feed Oiler

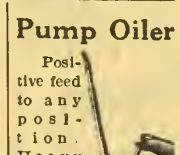
81E5522—For machine, engineers, tractors, automobiles, etc. All the mechanism is in the spout, reserving all of the can proper for oil. Made of steel, gun metal finish. Size, 1/2 pint. Diam. 3 1/2 inches, height 7 1/2 in. Ship. wt., 8 oz. 75c

| 81E5523—Machinery oiler 3/4 pint capacity. Diam. 3 1/2 in., height 8 1/2 in. Ship. wt., 10 oz. | Each..... 95c |
|--|---------------|
|--|---------------|



Seamless steel body. Delivers oil in any position. 81E5522—Spout 9 in. Size 1/2 pt. Diameter 3 1/2 inches. Ship. wt. oz. Each..... \$1.10

| 81E5523—Size, 1 pint. Diameter, 4 1/2 in. Ship. wt., 12 oz. | Each..... \$1.20 |
|---|------------------|
|---|------------------|



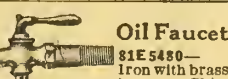
Positive feed to any position. Heavy tin. Bent spout. 81E5525—Size, 1 pint. Spout, 9 inch. Ship. wt., 8 oz. Each..... 95c

| 81E5526—Size, 1 qt. Spout, 18 inch. Ship. wt., 12 oz. | Each..... \$1.40 |
|---|------------------|
|---|------------------|

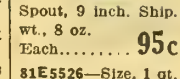


Oil Faucet

81E5480—Iron with brass lever. Ship. wt., 1/2 to 2 1/2 lbs. Size, inches 1 1/2 1 3/4 2 1/2 3 1/2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



81E5480—Iron with brass lever. Ship. wt., 1/2 to 2 1/2 lbs. Size, inches 1 1/2 1 3/4 2 1/2 3 1/2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



81E5480—Iron with brass lever. Ship. wt., 1/2 to 2 1/2 lbs. Size, inches 1 1/2 1 3/4 2 1/2 3 1/2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

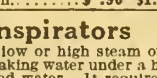


Hancock Inspirator

81E5583—Works with low or high steam on all lifts up to 25 ft. and when taking water under a head, with hot as well as cold feed water. It requires no adjustment for varying steam pressure. Water can be elevated about 2 1/2 ft. for each pound of steam.

With 45 lb. steam pressure, water can be lifted 25 ft. and elevated 12 1/2 ft. above the inspirator. Cast iron, nicely finished. Ship. wts., 4 to 13 lbs. Give size.

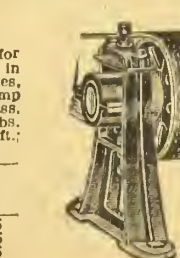
| Mfrs. Size | Price Each | Steam Pressure | Water Lift | Capacity per Hr. |
|------------|------------|----------------|------------|------------------|
| 7 1/2 | \$8.80 | 3/4 | 1/2 | 60 |
| 8 1/2 | 9.90 | 3/4 | 1/2 | 90 |
| 10 | 13.00 | 3/4 | 1/2 | 120 |
| 12 1/2 | 13.75 | 3/4 | 1/2 | 220 |
| 15 | 16.50 | 3/4 | 1/2 | 300 |
| 17 1/2 | 22.00 | 3/4 | 1/2 | 420 |
| 20 | 24.75 | 3/4 | 1/2 | 540 |



H. D. Ejector or Jet Pump

81E5579—Jet pump for raising water and liquids in mines, pits, wells, tanneries, etc. Adapted as a bilge pump for steamboats. Solid brass. Will lift 24 ft. with 65 lbs. steam will elevate 50 to 60 ft. with 100 lbs. 70 to 80 ft. Ship. wts., 1 to 7 lbs.

| Mfrs. Size | Pipe Connections | Capacity per Hr. | Each |
|------------|------------------|------------------|--------|
| 1 | 1/2 | 250 | \$2.45 |
| 2 | 1/2 | 500 | 3.15 |
| 3 | 1/2 | 960 | 4.75 |
| 4 | 1 1/4 | 1300 | 6.30 |
| 5 | 1 1/2 | 2000 | 7.90 |



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| Mfrs. Size | Pipe Connections | Capacity per Hr. | Each |
|------------|------------------|------------------|--------|
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| 2 | 1/2 | 500 | 3.15 |
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| 4 | 1 1/4 | 1300 | 6.30 |
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Ajax Sight-Feed Lubricators

81E5514—For stationary, traction and portable engines. A high-grade single connection lubricator. Requires only one tapping in steam pipe and can be easily attached to, in either a horizontal or vertical pipe or in steam chest of engine.

Glass sight feed. Brass body. Anely polished and finished wood hand wheels. Thoroughly tested. All sizes are fitted for 1/2 in. (pipe size) connections. Ship. wt., 7 to 12 lbs.

| Cap. | Height | For Cylinder Diameter | Each |
|----------|------------|-----------------------|--------|
| 1/2 pint | 13 in. | Under 10 in. | \$9.30 |
| 3/4 pint | 13 1/2 in. | 10 to 12 in. | 10.35 |
| 1 pint | 16 in. | 12 to 18 in. | 11.70 |

Lakeside Force Feed Lubricator

Designed for steam engines, pumps, gasoline engines, etc.—with a force feed with absolute regularity under all conditions. Iron body with brass sight feed. Lubricator has 1/2 in. connections and attachment, 1/2 in. conn. (pipe size). Ship. wt., 23 lbs.

81E5518—Complete with Sight Feed Attachment as shown. \$14.30

81E5519—Lubricator without the sight feed attachment. Height 9 1/2 in. Diam. 5 in. Ship. wt., 19 1/2 lbs. Each..... \$9.55

Brass Lubricator

81E5511—Polished Cast Brass. Ship. wt., 1 to 3 lbs.

| Pipe Size | Height Inches | Each |
|-----------|---------------|--------|
| 1/2 | 5 1/2 | \$1.50 |
| 3/4 | 6 1/2 | 1.60 |
| 1 | 7 1/2 | 1.95 |
| 1 1/4 | 8 1/2 | 2.50 |
| 1 1/2 | 9 1/2 | 3.20 |

Automatic Grease Caps

81E5498—Polished cast brass. Ship. wt., 10 to 22 oz. Size..... 00 0 1 2 Length in. 4 4 4 4 Inside diam. 1 1 1 1 Pipe size in. 1/4 1/4 1/4 1/4 Each..... 78c \$1.00

81E5499—Polished cast brass. Ship. wt., 10 to 22 oz. Size..... 00 0 1 2 Length in. 4 4 4 4 Inside diam. 1 1 1 1 Pipe size in. 1/4 1/4 1/4 1/4 Each..... \$1.26 \$1.70



Glass Oil Cup

81E5502—With sight feed and snap lever. Polished brass. Glass body. Feed regulated by top lever. Wt., 7 to 20 oz.

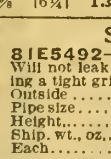
| Size | Dia. In. | Pipe Size | Ht. In. | Each |
|------|----------|-----------|---------|--------|
| 0 | 1 1/2 | 3/4 | 4 1/4 | \$.90 |
| 1 | 1 1/2 | 3/4 | 5 | 1.00 |
| 2 | 1 1/2 | 3/4 | 5 1/2 | 1.08 |
| 3 | 2 | 3/4 | 6 1/4 | 1.15 |
| 4 | 2 1/2 | 3/4 | 6 1/4 | 1.30 |



Glass Oil Cup

81E5505—Polished brass. With sight feed and snap lever. Adapted for gas engines. Ht., 5 1/2, 6, 6 1/2, 6 3/4, 7, 10 to 22 ounces.

| Outside Dia. In. | Pipe Size | Cap. Oz. | Each |
|------------------|-----------|----------|--------|
| 1 1/2 | 3/4 | 1 1/4 | \$1.25 |
| 2 | 3/4 | 2 1/2 | 1.38 |
| 2 1/2 | 3/4 | 4 | 1.47 |
| 3 | 3/4 | 5 | 1.98 |



Steel Grease Cup

81E5492—Screw Feed. Iron body and cap. Will not leak or break. Knurled rim at top affording a tight grip in turning. Outside..... diam. 1 1/2 1 3/4 2 1/2 3 1/2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

81E5492—Screw Feed. Iron body and cap. Will not leak or break. Knurled rim at top affording a tight grip in turning. Outside..... diam. 1 1/2 1 3/4 2 1/2 3 1/2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

81E5492—Screw Feed. Iron body and cap. Will not leak or break. Knurled rim at top affording a tight grip in turning. Outside..... diam. 1 1/2 1 3/4 2 1/2 3 1/2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

81E5492—Screw Feed. Iron body and cap. Will not leak or break. Knurled rim at top affording a tight grip in turning. Outside..... diam. 1 1

58c Use Lakeside Wrenches - Save Your Knuckles 79c up

Forged Steel Wrench

84 E 7458—Excellent for the autoist, machinist or general use. Possesses all the advantages of a solid S wrench, as well as the conveniences of an adjustable wrench. Gets into tight places and other spots that cannot be reached with the regular style wrenches. Angle head, thin jaws, fits hexagon and square nuts.

| Length, inches | 6 | 8 | 10 | 12 |
|-------------------------|-----|-----|-------|--------|
| Opens about, inches | 3/4 | 5/8 | 1 1/8 | 1 1/2 |
| Shipping weight, pounds | 1/4 | 5/8 | 1 1/4 | 2 1/4 |
| | 58c | 72c | 90c | \$1.30 |

Adjustable S Wrench

84 E 7456—Easily and quickly adjusted. The 6-inch takes any nut up to 3/4 inch and the 8-inch up to 1 inch. Malleable iron, with sliding jaw and steel screw. Nicely finished and useful in many places inaccessible with the ordinary wrench. (Give size.)

| Trade Size | Opens about | Ship Weight | Each |
|------------|-------------|-------------|--------|
| 6 in. | 3/4 in. | 3/4 lbs. | \$.55 |
| 8 in. | 1 in. | 1 lbs. | .75 |
| 10 in. | 1 1/8 in. | 2 lbs. | .90 |
| 12 in. | 1 1/2 in. | 3 1/4 lbs. | 1.30 |

Steel Monkey Wrench

84 E 7440—Screw Wrench, with wrought-iron bar, head and screws, wood handle.

| Size | Ship. Wt. | Each |
|--------|------------|--------|
| 6 in. | 1 lbs. | \$.45 |
| 8 in. | 1 1/2 lbs. | .56 |
| 10 in. | 2 lbs. | .65 |
| 12 in. | 2 1/2 lbs. | .84 |
| 15 in. | 3 1/2 lbs. | 1.12 |

Socket Wrench Set

84 E 7467—Made of Hardened Pressed Steel. Set consists of 8 heavy reinforced sockets, 8 inch extension bar, forged universal joint and ratchet wrench. The wrench can be operated in either direction. All bolts easily accessible, with the improved universal joint and extension bar. Will accommodate nuts ranging from 1/32 to 2 1/2 inches. Square socket takes sizes 1/32. Shipping weight, 3 pounds.

\$2.95

Malleable Socket Wrench Set

Reversible Ratchet Socket Wrench Set convenient in places hard to reach with regular style wrench.

84 E 7470—Length, 11 in. With 6 sockets, fitting nuts, hex. or sq., on bolts, 1/4, 3/8, 1/2 in. U. S. Stand. Ship. wt., 5 lbs. Set, **\$1.20**

84 E 7471—Length, 11 in. With 10 sockets, for nuts on bolts, 1/4 to 3/4 in., hex. or sq. U. S. Stand. Ship. wt., 6 lbs. Set, **\$2.10**

Socket Wrench Set

84 E 7468—Especially good for all styles of farm machinery, autos and general shop work. Heavy malleable iron, black finish. Set includes 1 ratchet handle, 9 in. long; 1 universal joint to reach cramped difficult places at any angle; 1 eight-inch extension; 1 screw driver bit; 14 hexagon sockets to fit standard nuts ranging from 1/32 to 1 1/2 in. Hex. opening; six square sockets from 1/32 to 1 1/2 square opening. Ship. wt., **\$3.65**

84 E 7466—Mossberg Style 9. With nickel-plated 10 inch ratchet handle. Complete in wooden case with 26 sockets of case-hardened pressed steel. Fit large variety of nuts and screws. Contains: 19 sizes hexagon from 1/32 to 1 1/2 in., 7 sizes square from 1/32 to 1 1/2 inch openings, 1 universal joint, 1 extension bar, 1 double end screw-driver. Shipping weight, 8 pounds. Set, **\$6.25**

84 E 7465—Mossberg Style 7. With 15 pressed steel sockets, from 1/32 to 1 1/2 inches openings. One offset socket wrench handle 10 inches long. One take down T socket wrench handle 10 in. high. Complete in wood box. Ship. wt., 6 lbs. Set, **\$2.98**

Socket Wrench Set in Wood Case

Roller Tube Expander

84 E 7550—High grade steel boiler tube expanders. Sizes indicate the outside diameter of the tube. (Not the inside diam.)

| Size, in. | 1 1/2 | 1 3/4 | 2 | 2 1/2 | 2 3/4 | 3 |
|-----------------|--------|--------|--------|--------|--------|--------|
| Ship. wt., lbs. | 3 | 3 3/4 | 4 1/4 | 6 | 7 1/2 | 10 1/2 |
| | \$4.50 | \$4.55 | \$4.60 | \$5.60 | \$6.50 | \$8.40 |

Self-Adjusting Pipe Wrench

84 E 7490—A simple practical tool for pipe and fittings. Grips tightly any pipe within its capacity without adjustment. Black finish.

| Trade Size | Takes Pipe In. | Ship. Wt. | Each |
|------------|----------------|------------|--------|
| 10 in. | 1 1/2 to 1 | 1 1/2 lbs. | \$1.15 |
| 14 in. | 3/4 to 1 1/4 | 2 1/2 lbs. | 1.52 |
| 24 in. | 1 1/2 to 2 1/2 | 6 1/4 lbs. | 3.40 |

Knife-Handle Wrench

84 E 7445—Forged from tool steel, case hardened jaws. Solid one-piece bar extends through to end of handles. Varnished hardwood grips riveted to handle with heavy iron rivets. Our Lakeside is a thoroughly reliable knife handle wrench. Made for hard service, and will stand a great deal of abuse. We know it will give you perfect satisfaction.

| Size | 8 | 10 | 12 | 15 | 21 |
|-----------------|-------|--------|--------|--------|--------|
| Ship. wt., lbs. | 1 1/4 | 2 1/4 | 3 1/4 | 5 1/4 | 10 |
| | 89c | \$1.15 | \$1.45 | \$1.95 | \$2.95 |

Set of 5 Wrenches

Straight double end wrenches stamped steel. Lengths, 3 1/4 to 8 3/4 inches, with openings 1/4 inch to 1 inch. Shipping weight, of set, 1 1/4 pounds.

84 E 7512—Extra finish, with polished jaws. Set of 5, **79c**

84 E 7513—Semi-finished, mottled surface. Set of 5, **60c**

S Wrench Set

Double End

84 E 7516—Set of 5. Drop forged steel wrenches. Openings from 3/4 to 1 in. Length, 6 1/4 to 10 1/4 in. Ship. wt., 3 lbs., **96c**

Double End Engineers Wrenches

84 E 7510—Drop forged steel, black finish.

| Size | Length, inches | Size Openings, inches | Ship. Weight | Each |
|------|----------------|-----------------------|--------------|------|
| 21 | 3 1/4 | 5/16 and 1/32 | 4 oz. | 7c |
| 23 | 4 | 1/32 and 3/32 | 5 oz. | 10c |
| 25 | 4 1/4 | 1/32 and 1/16 | 6 oz. | 10c |
| 27 | 5 | 1/16 and 1/8 | 7 oz. | 10c |
| 29 | 6 1/2 | 1/8 and 3/16 | 8 oz. | 10c |
| 31 | 7 1/2 | 3/16 and 1/4 | 12 oz. | 10c |
| 33 | 8 3/4 | 1/4 and 3/8 | 16 oz. | 10c |
| 35 | 9 1/4 | 3/8 and 1/2 | 20 oz. | 10c |
| 37 | 11 1/4 | 1/2 and 3/4 | 24 lbs. | 40c |
| 39 | 13 1/4 | 3/4 and 1 | 24 lbs. | 69c |

Pipe Tool Set

184 E 7435—Often avoids the necessity of sending for a plumber or steam fitter. Consists of the following high grade tools:

- 1 Pipe Stock No. 1, to thread 1/4, 3/8, 1/2, 3/4, and 1 in. pipe.
- 1 Pipe Cutter, No. 1 cuts 1/4 to 1 in. pipe.
- 1 Malleable Pipe Vise, Takes 1/4 to 2 in. pipe.
- 1 Stillson Pipe Wrench, 10 in. Takes 1/4 to 1 in.
- 1 Stillson Pipe Wrench, 14 in. Takes 3/4 to 1 1/2 in.
- 1 Steel Oil Can, copper plated.
- 1 Can Graphite Pipe Joint Cement.

Ship. wt., 35 lbs. Set, **\$13.75**

Bull Dog Pipe Die Stock

184 E 7412—The Oster Bull Dog Stock provides instant and easy release of the dies without backing off. The Dies are double taper, tempered steel, cutting a smooth, accurate thread. One set of dies cuts two sizes of thread. The chuck has hardened steel jaws which center the pipe. Pipe taps not included.

| Size | For Pipe, in. | Ship. Wt. | Each |
|------|------------------------|-----------|---------|
| 101 | 3/4, 1, 1 1/4, 1 1/2 | 12 lbs. | \$11.80 |
| 102 | 1, 1 1/4, 1 1/2, 1 3/4 | 20 lbs. | 15.35 |
| 103 | 1 1/4, 1 1/2, 1 3/4, 2 | 28 lbs. | 20.00 |
| 104 | 1 3/4, 2, 2 1/4, 2 1/2 | 30 lbs. | 22.75 |
| 105 | 2 1/4, 2 1/2, 2 3/4, 3 | 65 lbs. | 37.50 |

Standard Pipe Stock

484 E 7400—Stock and Dies Complete. For threading wrought pipe. Malleable iron stock, with hallow steel handles, quickly and easily interchanged for various size pipe. Cuts clean true threads. No 2 size has leader screw which is not necessary in smaller sizes. Pipe taps not included.

Dimensions of dies: No. 0-2x2x1 1/2 in. No. 1-2 1/2x2 1/2x3 1/2 in. No. 1 1/2-1 1/2x3x3 1/2 in. No. 2-4x4x3 1/2 in.

| Size | Cuts Pipe, in. | Ship. wt., lbs. | Set |
|-------|----------------------------|-----------------|--------|
| 0 | 1/4, 3/8, 1/2, 5/8, 3/4, 1 | 8 | \$4.95 |
| 1 | 1/2, 3/4, 1, 1 1/4, 1 1/2 | 12 | 6.65 |
| 1 1/2 | 1, 1 1/4, 1 1/2, 1 3/4 | 14 1/2 | 6.00 |
| 1 3/4 | 1 1/4, 1 1/2, 1 3/4, 2 | 15 1/2 | 6.15 |
| 2 | 1 3/4, 2, 2 1/4, 2 1/2 | 24 | 9.20 |

Extra Dies and Guides

Ship. wt., Dies, 1 to 2 1/2 lbs.; guides, 4 to 10 oz.

| Fitting Stock No. | 84 E 7401 Dies, Each | 84 E 7402 Guides, Each |
|-------------------|----------------------|------------------------|
| 0 | \$.90 | 18c |
| 1 | 1.00 | 20c |
| 1 1/2 | 1.25 | 25c |
| 1 3/4 | 1.30 | 45c |
| 2 | 1.60 | 52c |

Double Pump Stock

84 E 7432—Has one die, 2x1 1/2, thread and one die, 1 1/2 inch over size to make perfect threads on finished rods in one cut. Shipping weight, 2 1/2 pounds. **\$3.65**

84 E 7433—Extra dies for double stock. Shipping weight, 2 1/2 pounds. Following sizes only. Size 1-1 1/2 inch. **\$1.10** **\$1.12**

Fine Steel S Wrench Set

84 E 7515—Set of 5 forged steel wrenches with accurately milled openings. Lengths, from 6 1/4 to 10 1/4 in., with openings from 1/4 to 1 in. Polished tempered jaws. 1 in. handy canvas roll. Ship. wt., 3 lbs. Set, **\$1.70**

Thin S Wrenches

84 E 7520—Set of 5 double end wrenches. Made of steel with thin bodies, easy to handle and light to carry in tool kit. Takes nuts any size from 1/4 inch to 1 inch. Shipping weight, 2 pounds. Set, **69c**

Wrench and Thread Cleaner

84 E 7504—Forged steel. Will grip nuts, rods or pipe up to 1 in. outside diameter. Three dies in center for restoring damaged threads on bolts. Size, 1/4, 3/8, 1/2 in. Length, 8 1/4 in. Ship. wt., 1 lb. Each, **45c**

Handy Twin Wrench

84 E 7500—Forged steel oil tempered. Holds pipe 1/4 to 1 in. Length, 10 in. Ship. wt., 1 1/2 lbs. Each, **45c**

Pipe Tool Set

184 E 7436—Will meet requirements of any ordinary shop. Consists of the following tools:

- 1 Pipe Stock No. 1, to thread, 1/4, 3/8, 1/2, 3/4 and 1 in. pipe.
- 1 Pipe Stock No. 2, to thread 1 1/4, 1 1/2 and 2 in. pipe.
- 1 Pipe Cutter No. 2, Cuts 1/2 to 2 in. pipe.
- 1 Malleable Pipe Vise, Takes 1/4 to 3 1/2 in. pipe.
- 1 Stillson Pipe Wrench, 14 in. Takes 3/4 to 1 1/2 in.
- 1 Stillson Pipe Wrench, 18 in. Takes 1 1/2 to 2 in.
- 1 Steel Oil Can, copper plated.
- 1 Can Graphite Joint Cement.

Ship. wt., 75 lbs. Set, **\$25.50**

Standard Pipe Stock

484 E 7400—Stock and Dies Complete. For threading wrought pipe. Malleable iron stock, with hallow steel handles, quickly and easily interchanged for various size pipe. Cuts clean true threads. No 2 size has leader screw which is not necessary in smaller sizes. Pipe taps not included.

Dimensions of dies: No. 0-2x2x1 1/2 in. No. 1-2 1/2x2 1/2x3 1/2 in. No. 1 1/2-1 1/2x3x3 1/2 in. No. 2-4x4x3 1/2 in.

| Size | Cuts Pipe, in. | Ship. wt., lbs. | Set |
|-------|----------------------------|-----------------|--------|
| 0 | 1/4, 3/8, 1/2, 5/8, 3/4, 1 | 8 | \$4.95 |
| 1 | 1/2, 3/4, 1, 1 1/4, 1 1/2 | 12 | 6.65 |
| 1 1/2 | 1, 1 1/4, 1 1/2, 1 3/4 | 14 1/2 | 6.00 |
| 1 3/4 | 1 1/4, 1 1/2, 1 3/4, 2 | 15 1/2 | 6.15 |
| 2 | 1 3/4, 2, 2 1/4, 2 1/2 | 24 | 9.20 |

Extra Dies and Guides

Ship. wt., Dies, 1 to 2 1/2 lbs.; guides, 4 to 10 oz.

| Fitting Stock No. | 84 E 7401 Dies, Each | 84 E 7402 Guides, Each |
|-------------------|----------------------|------------------------|
| 0 | \$.90 | 18c |
| 1 | 1.00 | 20c |
| 1 1/2 | 1.25 | 25c |
| 1 3/4 | 1.30 | 45c |
| 2 | 1.60 | 52c |

Double Pump Stock

84 E 7432—Has one die, 2x1 1/2, thread and one die, 1 1/2 inch over size to make perfect threads on finished rods in one cut. Shipping weight, 2 1/2 pounds. **\$3.65**

84 E 7433—Extra dies for double stock. Shipping weight, 2 1/2 pounds. Following sizes only. Size 1-1 1/2 inch. **\$1.10** **\$1.12**

Lakeside Stillson Wrench

84 E 7480—Stillson pipe wrenches have been popular for many years, with steam fitters, plumbers, automobilists, etc. standard wrench, forged steel with tempered steel jaws. Always grips the pipe firmly. Releases its hold instantly.

| Length, open | 6 in. | 8 in. | 10 in. |
|--------------------|---------|-------|-----------|
| Takes pipe to | 3/4 in. | 1 in. | 1 1/4 in. |
| Shipping wt., lbs. | 1 1/4 | 1 1/2 | 1 3/4 |
| | 79c | 83c | 98c |

Length, open..... 14 in. 18 in. 24 in.
Takes pipe to..... 1 1/2 in. 2 in. 2 1/2 in.
Shipping wt., lbs..... 1 3/4 2 1/4 3 1/4

Extra Parts for Stillson Wrenches
For Wrench size, in. 6 8 10
84 E 7481—Sliding Jaws..... 34c 37c 40c
84 E 7482—Frames..... 17c 19c 21c
84 E 7483—Nuts..... 6c 9c 11c
For Wrench size, in. 14 18 24
84 E 7481—Sliding Jaws..... 46c 74c 96c
84 E 7482—Frames..... 27c 34c 45c
84 E 7483—Nuts..... 16c 20c 28c

90c and up Genuine Trim Pipe Wrench

84 E 7485—Drop forged steel handle and jaws. Patent guard prevents nut from turning. Grip pipe firmly, and is quickly released.

| Size, Open | Takes Pipe | Ship. Wt. | Each |
|------------|------------|------------|--------|
| 6 in. | 3/4 in. | 3/4 lbs. | \$.90 |
| 8 in. | 1 in. | 1 1/4 lbs. | 1.05 |
| 10 in. | 1 1/8 in. | 2 lbs. | 1.15 |
| 14 in. | 1 1/2 in. | 4 lbs. | 2.25 |
| 18 in. | 2 in. | 5 1/2 lbs. | 2.95 |
| 24 in. | 2 1/2 in. | 9 lbs. | 3.25 |

84 E 7450—Genuine Bemis & Co.

Combination pipe and monkey wrench. Long adjusting nut, permits firm grip. Perfectly rigid; strong and handy. Forged steel with wood handle. Ship. wt., 2 to 5 lbs.

| Size | Takes Pipe | Each |
|--------|----------------|--------|
| 10 in. | 3/4 to 1 in. | \$1.85 |
| 12 in. | 1 to 1 1/4 in. | 2.25 |
| 15 in. | 1 1/4 to 2 in. | 3.00 |

184 E 7492—Forged steel, one piece, milled and teeth jaws, quickly and firmly grips pipe. Flat link steel chain.

20 in. Takes Pipe In. 3/4 to 1 1/2 in. Ship. Wt. 6 lbs. Each **\$2.60**
27 in. Takes Pipe In. 1 to 2 1/2 in. Ship. Wt. 9 1/2 lbs. Each **3.70**
37 in. Takes Pipe In. 1 1/4 to 4 in. Ship. Wt. 19 1/2 lbs. Each **5.20**
44 in. Takes Pipe In. 1 to 6 in. Ship. Wt. 23 lbs. Each **6.70**

Three Wheel Pipe Cutter

Three wheels for quick and easily cutting pipe and tubing. Wheels are best tool steel. Body and handle, malleable iron and steel, strong and substantial.

| Length | Takes Pipe In. | Ship. Wt. | Each |
|--------|------------------|-------------|--------|
| 20 in. | 3/4 to 1 1/2 in. | 6 lbs. | \$2.60 |
| 27 in. | 1 to 2 1/2 in. | 9 1/2 lbs. | 3.70 |
| 37 in. | 1 1/4 to 4 in. | 19 1/2 lbs. | 5.20 |
| 44 in. | 1 to 6 in. | 23 lbs. | 6.70 |

84 E 7540—Cuts 1/4 to 1 in. \$2.25

84 E 7541—Cuts 1/2 to 2 in. \$3.00

84 E 7542—Cuts 1 1/4 to 3 in. \$5.15

84 E 7543—Extra Wheels..... \$2.25

84 E 7544—Extra Wheels..... \$2.25

84 E 7545—Extra Wheels..... \$2.25

84 E 7546—Extra Wheels..... \$2.25

84 E 7547—Extra Wheels..... \$2.25

84 E 7548—Extra Wheels..... \$2.25

84 E 7549—Extra Wheels..... \$2.25

84 E 7550—Extra Wheels..... \$2.25

84 E 7551—Extra Wheels..... \$2.25

84 E 7552—Extra Wheels..... \$2.25

84 E 7553—Extra Wheels..... \$2.25

84 E 7554—Extra Wheels..... \$2.25

84 E 7555—Extra Wheels..... \$2.25

84 E 7556—Extra Wheels..... \$2.25

84 E 7557—Extra Wheels..... \$2.25

84 E 7558—Extra Wheels..... \$2.25

84 E 7559—Extra Wheels..... \$2.25

84 E 7560—Extra Wheels..... \$2.25

84 E 7561—Extra Wheels..... \$2.25

84 E 7562—Extra Wheels..... \$2.25

84 E 7563—Extra Wheels..... \$2.25

84 E 7564—Extra Wheels..... \$2.25

84 E 7565—Extra Wheels..... \$2.25

84 E 7566—Extra Wheels..... \$2.25

84 E 7567—Extra Wheels..... \$2.25

84 E 7568—Extra Wheels..... \$2.25

84 E 7569—Extra Wheels..... \$2.25

84 E 7570—Extra Wheels..... \$2.25

84 E 7571—Extra Wheels..... \$2.25

84 E 7572—Extra Wheels..... \$2.25

84 E 7573—Extra Wheels..... \$2.25

84 E 7574—Extra Wheels..... \$2.25

84 E 7575—Extra Wheels..... \$2.25

84 E 7576—Extra Wheels..... \$2.25

84 E 7577—Extra Wheels..... \$2.25

84 E 7578—Extra Wheels..... \$2.25

84 E 7579—Extra Wheels..... \$2.25

84 E 7580—Extra Wheels..... \$2.25

Send for this Book One Fire Heats the Whole House

Turn Winter Into Summer with a Sterling Windsor Heater

HERE is a new, economical way to heat your home with hot water without going to the expense of digging a basement. The Sterling Windsor boiler may be placed in any room on the first floor of your home. It is small and compact, 48 inches high, and in sections which permit it to be increased in size by the addition of other sections to meet any alterations in the home. It is of a neat design and by painting to match the furniture or color scheme of the room, a very attractive and pleasing fixture will result. It is far more attractive than any stove and is much easier to keep clean. Its simple operation and fuel economy added to its low cost makes this heating system the ideal method for the average home.

See page 675 for additional information.
As the requirements for no two homes are alike it is impossible to exactly estimate the cost of installing a Sterling Windsor in your home. However, we can assure you that the very low price which has made this system so popular will apply to your case as well as others and the costs listed below will give you an idea as to the average.

Sold on Easy Monthly Payments

If you so desire this system may be purchased on easy monthly payments thereby enabling you to derive all the benefits offered by this equipment without any large outlay of cash. Pay for it as you use it.

We carry a staff of engineers for the purpose of helping our customers to determine the proper heating systems for their homes. Let these engineers work for you. Their services are absolutely free. Send in a floor plan sketch of your home, or, better still, fill in the chart which we furnish in our Plumbing and Heating Book and let us figure the exact cost of installing this heater in your home. This service places you under no obligation to us whatever.

Below are some actual costs of Sterling Windsor systems installed in homes of 5 to 6 rooms.

| | Cash Price | Remember we have no extra interest charges | Time Payment Price |
|---------------------|------------|--|--------------------|
| 5 Room Bungalow | \$225.00 | 5 Room Bungalow | \$254.00 |
| 6 Room Bungalow | 270.00 | 6 Room Bungalow | 303.50 |
| 5 Room, Two Stories | 248.00 | 5 Room, Two Stories | 279.30 |
| 6 Room, Two Stories | 297.50 | 6 Room, Two Stories | 328.25 |

This Special Catalog gives Prices-Terms, Sizes and Detailed Information and Instructions on all Ward's Heating and Plumbing Systems



Cottage Windsor Pipeless Furnace

For Small Homes

Sold for Cash Only

Material and Construction
Has a cast iron fire pot, steel radiator, roomy combustion chamber, triangular revolving grate, and a galvanized steel casing adjustable for any basement with a 6 to 8 foot ceiling. Large feed door. Prices include floor register, damper, chains and pulleys, shaker, and cement to make all the joints gas and air tight. Smoke pipe is not included.

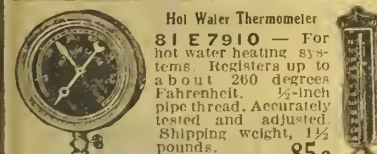
You can get up a Cottage Windsor Furnace yourself, in less than a day. Can be installed in an old house as well as in a new one. Cold air can be taken direct from the basement, or from the outside through cold air duct connected to a basement window.

Size 20 and 22-inch fitted for 8-inch smoke pipe. The 24-inch for 9-inch pipe. (Pipe not included.) For Wood Burning Grate Plates, Smoke Pipes, Elbows and Dampers see page 833.

| Number | Fire-pot In. | Heating Cap. Cu. Ft. | Ship. Wt. Lbs. | Cash Price Each |
|----------|--------------|----------------------|----------------|-----------------|
| 281E7990 | 20 | 9,000 | 750 | \$65.40 |
| 281E7991 | 22 | 12,000 | 850 | 74.85 |
| 281E7992 | 24 | 18,000 | 950 | 88.80 |

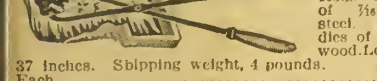
Shipped from Warehouses in Southern Michigan or Southern Illinois

481E8167—Water Heating Coil, for use with a range boiler. Shipping weight, \$2.25 about 10 lbs. Each. The dimensions given above are approximate and may vary slightly.



Hot Water Thermometer
81E7910—For hot water heating systems. Registers up to about 260 degrees Fahrenheit. 1/2-inch pipe thread. Accurately tested and adjusted. Shipping weight, 1 1/2 pounds. Each. 85c

Altitude Gauge
81E7918—For indicating height of water in a hot water heating plant. Stationary and moving hands. Registers to about 70 feet. Complete with 1/4-inch gauge cock, size 3 1/2 inches. Shipping weight, 3 1/4 pounds. Each. \$2.60



Clinker Tongs
81E8028—Rods made of 3/16-inch steel. Handles of hard wood. Each. 37 inches. Shipping weight, 4 pounds. Each. 94c

Asbestos Boiler Covering
Don't throw money away by letting heat escape. Cover your boiler and furnace with Asbestos Cement and save fuel. For covering heating boilers and hends in pipes over which the regular moulded covering cannot be applied. In 100-lb. bags. Prices subject to market changes. 181E7931—Per bag. \$1.90

Windsor Hot Water and Steam Boilers

Write for Our Plumbing and Heating Book and Easy Payment Prices on Complete Systems

Hot Water Heat

A HOT Water Heating System is the most desirable for the average home or apartment building. It gives you a clean, even heat, easily regulated, and economical in the use of fuel. Heats every corner of your home.

Steam Heat

A Steam Heating System is the best for large residences, apartments or public buildings. Quick results and a high temperature are easily obtained. Easy to install and regulate.

Giant Windsor Heating Boilers For Hot Water and Steam Heat

Round type—of highest efficiency. Cast-iron, with corrugated large surface fire pot. Rocking grates and every improvement. Sections are joined with heavy tapering push-nipples. Large fuel and cleanout door. Steam-boiler is fitted with diaphragm regulator for regulating draft and check-dampers, steam-gauge, pop-safety valve and water-gauge. Both steam and water boilers are furnished with shaker handle, flue brush and handle, scraper and poker. All boilers have cored opening for water coil.

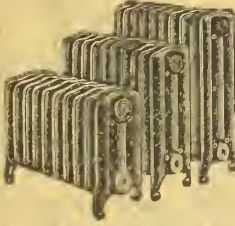
| 281E7831—Hot Water Boiler | | | | 281E7832—Steam Boiler | | | |
|----------------------------|----------------|------------|----|--------------------------------|----------------|------------|--|
| Capacity Sq. ft. Radiation | Ship. wt. Lbs. | Cash Price | | Capacity Square Feet Radiation | Ship. wt. Lbs. | Cash Price | |
| 525 | 660 | \$71.20 | 18 | 325 | 760 | \$84.00 | |
| 600 | 775 | 81.25 | 18 | 375 | 865 | 92.75 | |
| 650 | 890 | 91.25 | 18 | 400 | 970 | 102.75 | |
| 825 | 990 | 105.00 | 21 | 500 | 1090 | 115.25 | |
| 925 | 1110 | 112.50 | 21 | 550 | 1210 | 122.75 | |
| 1100 | 1185 | 136.40 | 24 | 650 | 1280 | 150.70 | |
| 1200 | 1320 | 143.75 | 24 | 700 | 1425 | 157.95 | |
| 1450 | 1500 | 163.75 | 28 | 825 | 1540 | 184.46 | |
| 1550 | 1710 | 180.00 | 28 | 950 | 1850 | 196.95 | |
| 1850 | 1625 | 204.00 | 31 | 1125 | 1890 | 225.07 | |
| 2000 | 1870 | 217.50 | 31 | 1200 | 2060 | 238.35 | |
| 2100 | 2125 | 231.00 | 31 | 1275 | 2240 | 252.35 | |

Shipped from Factory in Western New York.

General Heating Accessories

Radiators for Hot Water, Vapor and Steam Plain Design—3 Column

Made of smooth cast iron with tapered steel push-nipple joints. To figure the cost of any particular size, simply multiply the number of square feet in the



radiator by the price per foot.

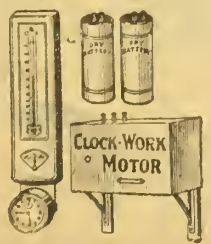
Hot water radiators are tapped as follows, unless otherwise specified: Up to 50 sq. ft., 1/4-in. feed and return, 50 sq. ft. to 100 sq. ft., 1-in. feed and return, over 100 sq. ft., 1 1/4-in. feed and return.

Steam radiators are tapped as follows, (unless otherwise specified): Up to 30 sq. ft., 1-in. supply; 30 sq. ft. to 60 sq. ft., 1 1/4-in. supply; 60 sq. ft. to 120 sq. ft., 1 1/2-in. supply; over 120 sq. ft., 2-in. supply.

Windsor Automatic Heat Regulator

A Warm House Day and Night A High Grade Instrument Unconditionally Guaranteed

Keeps temperature at any desired degree, day and night, regardless of weather. As temperature tends to rise or fall the motor will close



Heating Surface of 3-Column Radiators

| No. of Sections | Heat Surface 38 In. High 5 Sq. Ft. per Section | Heat Surface 26 In. High 3 1/4 Sq. Ft. per Section | Heat Surface 22 In. High 3 Sq. Ft. per Section |
|-----------------|--|--|--|
| 2 | 10 sq. ft. | 7 1/2 sq. ft. | 6 sq. ft. |
| 4 | 20 sq. ft. | 15 sq. ft. | 12 sq. ft. |
| 5 | 25 sq. ft. | 18 3/4 sq. ft. | 15 sq. ft. |
| 6 | 30 sq. ft. | 22 1/2 sq. ft. | 18 sq. ft. |
| 8 | 40 sq. ft. | 30 sq. ft. | 24 sq. ft. |
| 10 | 50 sq. ft. | 37 1/2 sq. ft. | 30 sq. ft. |
| 12 | 60 sq. ft. | 45 sq. ft. | 36 sq. ft. |
| 14 | 70 sq. ft. | 52 1/2 sq. ft. | 42 sq. ft. |
| 16 | 80 sq. ft. | 60 sq. ft. | 48 sq. ft. |
| 18 | 90 sq. ft. | 67 1/2 sq. ft. | 54 sq. ft. |

281E7882—For Steam. 38 in. 26 in. 22 in. Price, sq. ft. 31c 36 1/4c 39 1/4c

281E7883—For Hot Water. 31 1/2c 37 1/4c 40 1/2c

Ship. wt., 7 lbs. sq. ft. Length of each section 2 1/2 in., width, 9 in.

See Special Heating Catalog for other styles and sizes.

Prices subject to market changes.

Shipped from Factory in Western New York.

or open draft and damper. Thermostat is mounted in brass case, for living room wall. With clockwork motor and crank, half-bearing pulley, damper chains, wire and electric dry batteries. Used for all furnaces and boilers. Ship. wt., 30 lbs.

81E7899—With clock attachment. For keeping temperature low at night and warm by getting-up time. \$29.75

Each. 81E7898—Without clock attachment. Each. \$26.95

Atlas Windsor Warm Air Furnace

For Use With Pipes and Registers

Complete Systems Sold on Easy Payments



HEAVY cast-iron radiator. Will not rust. Burns any kind of fuel—hard coal—soft coal—wood—coke—or coals.

Large cast-iron radiator, deep corrugated fire pot—revolving grate bars—large feed door. Saves fuel—easy to operate. Complete detailed description of Atlas Windsor Furnace in our Special Heating Catalog. We will send this book to you free of charge if you send us your name and address.

Prices include regulating dial and damper chains, check draft and firing tools.

All pipes and fittings are extra. See our Special Heating Catalog for complete line of registers and fittings.

| Number | Fire-pot In. | Heating Capacity Cu. Ft. | Ship. Wt. Lbs. | Each |
|----------|--------------|--------------------------|----------------|---------|
| 281E7985 | 20 | 13,000 | 750 | \$67.10 |
| 281E7986 | 22 | 16,000 | 850 | 78.75 |
| 281E7987 | 24 | 23,000 | 1,150 | 94.60 |
| 281E7988 | 26 | 35,000 | 1,325 | 114.50 |
| 281E7989 | 28 | 47,000 | 1,700 | 141.60 |
| 281E8008 | 30 | 65,000 | 1,500 | 168.00 |

Shipped from Warehouses in Southern Michigan or Southern Illinois.

Complete Systems sold on easy Payments. Write us for estimate.

Note—The top bonnet of furnace is furnished without any holes for pipes; these are to be cut as required, while being installed.

481E8167—Water Heating Coil, for use with a range boiler. Shipping weight, \$2.25 about 10 lbs. Each.

For Wood Burning Grate Plates, Smoke Pipes, Elbows and Dampers see page 833.

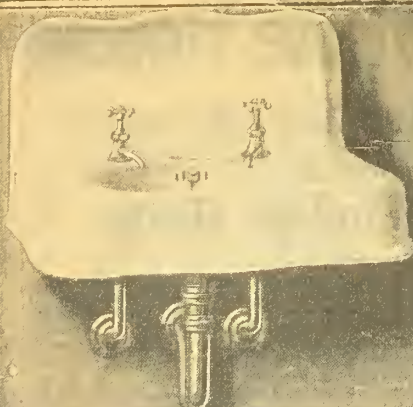


Shipping weights, 1 1/4 to 6 lbs. per length. For covering steam and hot or cold water pipe. Prevents freezing and loss of heat. Pays for itself in a very short time in saving of fuel. Each length has a strong cloth covering and is furnished with 2 lacquered brass bands. Use Wool felt for hot and cold water pipes. Asbestos for steam and hot water pipes. Prices below are per 3 foot length.

| Pipe Size | Hot and Cold Water Pipes | | | Steam and Hot Water Pipes | | |
|------------------------|--------------------------|-------------------|----------|---------------------------|----------|--|
| | Wool Felt | Air Cell Asbestos | | Air Cell Asbestos | | |
| 1 in Thick 3 Ft. Lenth | 181E7930 | 181E7926 | 181E7928 | 181E7928 | 181E7927 | |
| 1 1/2 | \$.37 | 31c | \$.37 | 33c | | |
| 2 | .40 | 38c | .40 | 42c | | |
| 2 1/2 | .45 | 42c | .45 | 45c | | |
| 3 | .50 | 47c | .50 | 50c | | |
| 3 1/2 | .55 | 51c | .55 | 54c | | |
| 4 | .60 | 56c | .60 | 60c | | |
| 4 1/2 | .67 | 63c | .67 | 65c | | |
| 5 | .76 | 68c | .76 | 70c | | |
| 6 | .84 | 84c | 1.00 | 90c | | |

Prices subject to Market Change. Shipped from Factory in Northern Illinois.

Lavatories



The Waverly

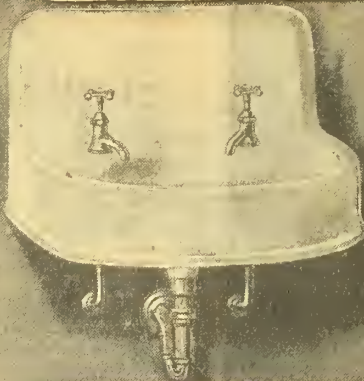
Genuine White Porcelain Enameled Cast Iron Deep Rim Lavatory, ornamental design. Size, 18x24 inches with 12x15-inch oval bowl. Height of back, 10-in. Concealed wall hangers.

281 E 6562—Lavatory only, without faucets, pipes, outlet connection, or stopper. Ship. wt., 120 pounds. **\$13.65** Each.

281 E 6564—Complete, with nickel-plated trap and pipes to floor. China indexed compression faucets. For lead pipe connection. Ship. wt., 130 lbs. Each **\$20.45**

281 E 6563—Same as above with pipes to wall. Each **\$19.95**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe. Each **50c**



The Dudley

Genuine White Enameled Cast Iron Lavatory. Size of the slab, 18x21 inches, with 11x14-inch bowl. Height of back, 8 in.

281 E 6554—Lavatory only, without faucets, pipes, outlet connection, or stopper. Ship. wt., 110 lbs. **\$10.25** Each.

281 E 6556—Lavatory complete, nickel-plated traps and pipes to floor. China indexed compression faucets. For lead pipe connection. Ship. wt., 120 lbs. **\$17.10**

281 E 6559—Lavatory complete, nickel-plated trap and pipes to wall. China indexed compression faucets. For lead pipe connection. Ship. wt., 120 lbs. Each **\$16.60**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe 50c



The Kenmore

Genuine White Porcelain Enameled Cast Iron Lavatory. Length, 24 in. Width, 20 in. Bowl, 12x15 inches. Height of back, 10½ inches. Concealed wall hangers.

281 E 6595—Lavatory only, without Ideal waste-fitting pipes, faucets, outlet connection or stopper. Ship. wt., 110 pounds. **\$14.65** Each.

281 E 6597—Lavatory complete, with Ideal waste-fitting, nickel-plated trap and pipes to floor, and China indexed compression faucets. For lead pipe connection. Ship. wt., 120 lbs. Each **\$25.75**

281 E 6599—Same as above with pipes to wall. Each **\$25.25**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe 50c



The Drexel

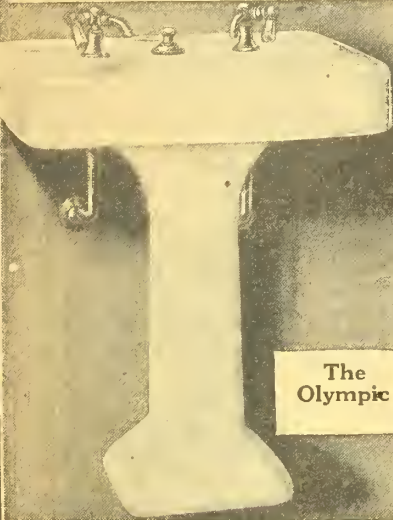
Genuine White Porcelain Enameled Cast Iron Lavatory. Length, 24 inches, width, 18 in. Bowl, 12x15 in. Height of back, 10½-in.

281 E 6558—Lavatory only, without pipes, faucets, outlet connection or stopper. Shipping weight, 110 lbs. **\$13.65** Price.

281 E 6557—Lavatory complete, nickel-plated trap and pipes to floor, and China indexed compression faucets. For lead pipe connection. Ship. wt., 120 pounds **\$20.50**

281 E 6560—Lavatory complete, nickel-plated trap and pipes to wall, and China indexed compression faucets. For lead pipe connection. Ship. wt., 120 lbs. **\$20.00**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe 50c



The Olympic

Combines Beauty and Service

The quality of the Olympic is the highest. Built in two separate parts—the top slab with bowl, and the pedestal. All white porcelain enameled. They are joined under the rim so that the joint is invisible.

Equipped with latest Ideal lifting knob waste fitting, with white china index. Waste fixture is of brass, nickel-plated. Faucets are of the latest Fuller type, nickel-plated, with white china handles indexed for hot and cold water.

Prices for complete lavatory include all necessary trimmings to wall or floor (no chain and stopper used) for lead pipe connection.

281 E 6586—Lavatory complete. Length of slab, 24 inches. Width, front to back, 20 in. Size of bowl, 12x15 in. Complete with supply pipes and trap to wall. Shipping weight, 200 pounds. Each **\$45.40**

281 E 6585—Lavatory complete with supply pipes and trap to floor. Each **\$45.90**

281 E 6584—Lavatory only. Each **\$51.40**

281 E 6587—Length of slab, 27 inches. Width front to back, 22 inches. Complete with supply pipes and trap to wall. Shipping weight, 240 lbs. Price, complete. **\$50.90**

281 E 6589—Lavatory complete with supply pipes and trap to floor. Each **\$51.40**

281 E 6588—Lavatory only. Same as 281 E 6587. Each **\$37.60**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe. Each **50c**

The Sheffield



The Suffolk

Genuine White Porcelain Enameled Cast Iron Lavatory. Size, 18x21 inches. Bowl, 11x14 inches. Height of back, 6 inches. Has 10½x13 in. bowl.

281 E 6540—Lavatory only, without pipes, faucets, outlet connections or stopper. Shipping wt., 60 lbs. Each **\$7.25**

281 E 6542—Lavatory complete with nickel-plated pipes, trap to floor. China indexed compression faucets. For lead pipe connection. Ship. weight, 70 pounds. Each **\$14.10**

281 E 6541—As above with pipes to wall. Each **\$13.60**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe. Each **50c**

or stopper. Shipping weight, 70 lbs. **\$9.10**

281 E 6546—Lavatory complete, N. P. trap and pipes to floor. China indexed compression faucets. Lead pipe con. Ship. wt. 90-lb. **\$12.95**

281 E 6545—Lavatory complete, nickel-plated trap and supply pipes to wall. China indexed compression faucets. For lead pipe connection. Shipping weight, 90 pounds. Each **\$12.45**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe. 50c



The Paramount

The "Paramount" is an exceptionally beautiful enameled iron lavatory. It will add much to the attractiveness of your bath room. The quality is of the very best.

It is made in two pieces, top slab and bowl in one piece and the pedestal in the other. They are joined at the top under the rim so that the joint is not visible.

Equipped with latest Ideal lifting waste fitting made of brass, heavily nickel-plated, and highly polished white china index. No chain or stopper. Handsome compression faucets made of highly polished nickel-plated brass, with white china hot and cold indexes.

Size of the top is 22x33 inches; the bowl 13x19 inches. The rim is 5 inches wide. Approximate shipping weight, 220 pounds.

281 E 6577—Lavatory only, same as above. Each **\$43.70**

281 E 6579—Lavatory complete with fittings to wall, trap, and pipes to wall, for lead pipe connection. Each **\$55.25**

281 E 6580—Same as above with pipes to floor. Each **\$56.75**

High Quality Fixtures at New Low Prices

Our Porcelain Enameled Fixtures are of the highest quality. They are genuine, white porcelain enameled, perfectly smooth and pure white. Coat after coat of fine white porcelain enamel is fused to the iron at an intense heat until a glistening and impervious finish is obtained. The fittings used are made of high quality brass, heavily nickel-plated and highly polished.

Before leaving the factory, each piece is carefully inspected. There is no chance of this high-grade porcelain enamel chipping, cracking or peeling with ordinary usage, and each and every piece is backed by Montgomery Ward & Company's iron-clad guarantee of "Satisfaction or Your Money Back."

LAVATORY FIXTURES

Compression Basin Cocks or Faucets

Semi-low pattern. Nickel plated on brass, four-ball handle. White China indexed top. Fitted for lead and iron pipe connection. Ship. wt., 1½ lbs.

81 E 5460—Indexed Cold. Each **\$1.35**
81 E 5461—Indexed Hot. Ea. **1.35**

High grade semi-low pattern. Nickel-plated on fine quality brass, four-ball handle. China index. Stuffing box. Fitted for both lead and iron pipe connection. Shipping wt., about 1½ lbs.

81 E 5475—Indexed Cold. Each **\$1.50**
81 E 5476—Indexed Hot. Each **\$1.50**

Fuller Basin Cocks

Made of brass, nickel-plated. Semi-low pattern, with round head. White China handle. Fitted for both lead and iron pipe connection. Shipping weight, 1½ lbs.

81 E 5465—Indexed Cold. Each **\$2.75**
81 E 5466—Indexed Hot. Each **\$2.75**

Solid brass, nickel-plated. Fitted for both lead and iron pipe connection. Shipping weight, 2 lbs.

81 E 5462—Left-hand Cock. Each **\$1.75**
81 E 5463—Right-hand Cock. Each **\$1.75**

Floor Supply Pipes

81 E 6618—Made of brass, nickel-plated. Size ¾-in. With nickel-plated floor flanges and compression coupling for connection to basin cock. For lead or iron pipe connection. Shipping weight, 4 pounds. Per pair (two) **\$1.78**

Wall Supply Pipes

81 E 6619—For wall connection. Nickel-plated brass, with wall flanges and compression coupling for basin cock. Size ¾-in. For lead or iron pipe connection. Shipping weight 4 pounds. Per pair (two) **\$1.78**

Long S Traps

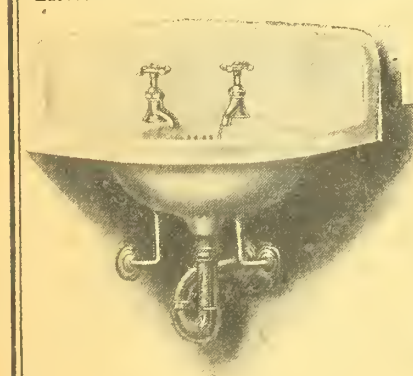
81 E 6611—Made of brass, nickel-plated. Size 1¼ in. For lavatories. Slip joint connections. Furnished complete with floor flange. For lead pipe connection. Ship. weight, 3 pounds. Each **\$2.25**

Plain P Trap

81 E 6613—For lavatories. Nickel-plated brass with vent. With wall flanges. For lead pipe connection. Ship. weight, 2 pounds. Each **\$1.78**

For 1½-inch iron pipe con. see 81E6614.

81 E 5455—Cock Hole Cover. Used to cover up hole in lavatories, kitchen sink backs, bath tubs and laundry tubs, when only one faucet is used. Nickel-plated finish, with nut and bolt as shown. Shipping weight, 1 ounce. Each **28c**



The Bradford

Genuine White Porcelain Enameled Cast Iron Corner Lavatory. Length on sides, 16 inches. Size of bowl, 11x14 inches, with patent overflow. Height of back, 6 inches. Concealed cast iron wall hangers.

281 E 6572—Lavatory only, without faucets, pipes, outlet connection, or stopper. Shipping weight, 75 lbs. **\$8.65** Each.

281 E 6573—Lavatory complete, with nickel-plated trap and pipes to floor. China indexed compression faucets. For lead pipe connection. Ship. wt., 85 lbs. Each **\$15.45**

281 E 6578—As above with pipes to wall. Each **\$14.95**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe. Each **50c**



The Dinsmore

Genuine White Porcelain Enameled Cast Iron Corner Lavatory. One solid piece with 11x14-inch bowl and deep rim. Length of back, 16½ in. Height of back, 8 inches. This is an ideal fixture for places where a corner lavatory is desired. Enamel is white and smooth. Concealed wall hangers.

281 E 6566—Lavatory only, without pipes, trap, outlet connection or stopper. Ship. wt., 9 lbs. Each **\$11.60**

281 E 6568—Lavatory complete, with nickel-plated pipes and trap to floor, and China indexed compression faucets. For lead pipe connection. Shipping weight, 100 pounds. Each **\$18.40**

281 E 6585—Lavatory complete with nickel-plated pipes and trap to wall, and China indexed compression faucets. For lead pipe connection. Shipping weight, 100 pounds. Each **\$17.95**

81 E 6614—1½-in. Slip Joint Connection for connecting lavatory trap to iron pipe. Each **50c**

Closet Outfits

Sanitary White
Vitreoous
Earthen Ware

lavias
ashdown
closet

181 E 6460—White Vitreoous China Tank, test flushing mechanism with white china bowl. Bowl is of best quality white vitreoous china, washdown type. Mahogany finished with nickel-plated extension post hinges, nickel-plated slip-joint elbow from tank to wall and supply pipe to floor with flange. For lead or iron pipe connection. Nickel-plated or screws and washers. Ship. wt., 120 lbs. Price..... **\$32.50**
181 E 6462—Same as above, except with white porcelain enameled iron tank. **\$31.60**
White Enameled Iron Tank Only
181 E 6464—Complete with nickel-plated brass supply pipe and elbow connection for washdown bowl. **\$16.65**
White Vitreoous China Tank Only
181 E 6465—Complete with nickel-plated brass supply pipe and elbow connection for washdown bowl. **\$17.50**

Altona Washdown Closet

181 E 6450—Substantial golden oak tank, copper-lined, solid oak seat. Bowl is white vitreoous china. Improved washdown type. Nickel-plated, 2-inch flush elbow with slip-joint couplings. Nickel-plated supply pipes and floor flange. Iron or lead pipe connection. Ship. wt., 100 lbs. Price..... **\$25.40**
181 E 6451—Same as above, except with Mahogany finish tank and seat. **\$25.60**
181 E 6457—Washdown bowls only for use with low tank. Fitted with 2-inch brass spud. Each. **\$11.20**
181 E 6474—Washdown bowls only for use with high tank. Fitted with 1½-inch brass spud. Each. **\$11.20**
Wood tank only complete with nickel-plated brass supply pipe and elbow connections for syphon washdown bowl. **\$11.90**
181 E 6467—Golden oak finish. **\$12.00**
181 E 6468—Mahogany finish. **\$12.00**

Aledo Syphon Jet Closet

Substantial golden oak tank, copper-lined. Has compound lever ball-cock valve. Push button action. Golden oak seat with nickel-plated extension post hinges. Latest noiseless type Syphon Jet vitreoous china bowl, with floor screws and washers. Nickel-plated offset and slip-joint couplings connect tank and bowl. Ship. wt., 120 lbs. Price..... **\$33.40**
181 E 6455—Complete. **\$33.40**
181 E 6456—Complete as above, with Mahogany finish tank and seat. **\$33.60**
Syphon Jet Bowl Only
181 E 6458—For use with low tank, 2-in. brass spud. Each. **\$17.50**
181 E 6476—For use with high tank, 1½-inch brass spud. Each. **\$17.50**
Wood tank only complete with nickel-plated brass supply pipe and offset for syphon jet bowls. **\$11.90**
181 E 6498—Golden oak fin. **\$12.00**
181 E 6499—Mahogany fin. **\$12.00**

High Grade Closet Seats

481 E 6487—Solid golden oak seat and cover. Nickel-plated brass bar hinge. Ship. wt., 14 lbs. Each. **\$3.65**
481 E 6488—Mahogany finish. Each. **\$3.75**
481 E 6495—All white celluloid covered seat and cover. Finest made. Each. **\$7.98**

Madison
Jet Syphon
Closet

181 E 6425—White vitreoous china tank. Latest noiseless syphon jet bowl, white celluloid covered seat. Nickel plated hinges. Offset flush connection and supply pipe. Ship. wt., 130 lbs. Price..... **\$42.00**
181 E 6461—With Mahogany finished seat. Price..... **\$38.90**
181 E 6427—With white porcelain enameled iron tank and white celluloid covered seat. Price..... **\$41.15**
181 E 6463—Same as 181 E 6427, but with Mahogany finished seat. Price..... **\$38.00**
White Vitreoous China Tank
181 E 6466—Complete with nickel-plated brass supply pipe and offset connection for syphon jet bowl. **\$17.50**
White Enameled Iron Tank
281 E 6469—Complete with nickel-plated brass supply pipe and offset connection for syphon jet bowl. **\$16.65**

Automatic Closets

181 E 6480—For basement or outside places. Requires no tank. Cast iron bowl. White porcelain enameled inside, painted outside. Patent valve flushes automatically, when the seat raises. Seat is light oak. Ship. wt., 50 pounds. Flush valve threaded for ½-in. pipe. Each. **\$11.95**
181 E 6484—Same as above except without seat or flushing mechanism. Can be connected to ½-inch water pipe for flushing by hand. Each. **\$2.80**

Frost Proof Closet

181 E 6453—For installation in unheated buildings. Automatic and positive flushing. When in use, water is admitted to tank and later discharged to flush the bowl. Consists of cast iron bowl, white porcelain, enameled inside, painted outside. 2½-ft. length soil pipe; half-8 trap, pressure tank and automatic valve mechanism. Can be called directly into soil pipe-hub. Ship. weight, 115 lbs. Price..... **\$30.75**

Bath Tubs

Walton Porcelain Enameled Tub

Heavy cast iron with genuine white porcelain-enameled inside and over rim. Fitted with nickel-plated improved Fuller double bath-cock, nickel-plated connected waste and overflow, chain and stopper and nickel-plated supply pipes.
281 E 6437—Bath tub complete with trimmings, outside painted one coat. Size, tub.....feet 4½ 5 5½
Weight.....pounds 315 350 365
Price, complete..... **\$33.50 \$34.00 \$40.25**
181 E 6430—Bath tubs complete with trimmings and painted Ivory White finish on outside of tub. A fine lasting finish. Size of tub.....feet 4½ 5 5½
Price, complete..... **\$48.50 \$49.00 \$55.25**
281 E 6434—Bath tub with legs only. No trimmings. Size, tub.....feet 4½ 5 5½
Each..... **\$25.10 \$25.60 \$31.85**
81 E 6614—1½-in. Slip Joint Connection for connecting waste to iron pipe. Each. **50c**

Maldere Ivory Finished Pedestal Tub

Attractively formed of heavy cast-iron, with genuine white porcelain-enameled finish inside and over the roll rim. Has the convenient Ideal lifting waste and overflow fitting, with china waste-index; nickel-plated brass. Does away with rubber stopper and chain. Complete with nickel-plated supply pipes to floor, and nickel-plated Fuller double bath-cock. Width, 30 in. With 3-in. heavy roll rim. Height to top, 23 in. Fitted for lead waste pipe and iron supply pipes.
Size, tub.....feet 4½ 5 5½
Shipping weight.....pounds 325 360 415
181 E 6446—Bath tub on base only, no trimming..... **\$37.90 \$38.40 \$41.20**
281 E 6444—With outside painted one coat of filler paint..... **51.50 52.00 54.80**
181 E 6445—Same as above except with trimmings shown on tub 181 E 6437..... **46.30 46.80 49.60**
281 E 6452—With handsome Ivory white finish on outside. Price, complete..... **66.50 67.00 69.80**
81 E 6614—1½-in. slip joint connection for connecting waste to iron pipe, each..... **50c**
All Bath Tubs shipped from Western Penn. or Chicago.

Rutland Porcelain Enameled Tub

Cast from best grade gray iron. White porcelain enamel on the inside and over the roll rim. Ideal waste fitting. Nickel-plated supply pipes to floor, floor flanges and Fuller double bath-cock. Width of tub over rim, 30 in. Depth inside, 17½ in. Height from floor to top of rim, 23 in. For lead pipe connection.
281 E 6438—Complete. Nickel-plated trimmings. One coat filler paint outside. Size of tub.....feet 4½ 5 5½
Ship. wt.pounds 325 360 375
Price, complete..... **\$45.00 \$45.50 \$49.00**
281 E 6433—Same as above, painted outside in handsome, durable Ivory white. Size of tub.....feet 4½ 5 5½
Price, complete..... **\$60.00 \$60.50 \$64.00**
81 E 6614—Nickel-plated slip joint connection 1½-in. for connecting waste to iron pipe. Each..... **50c**

Windsor Folding Bath Tub—No Running Water Required
The Windsor Folding Bath Tub is a real comfort for outlying homes, not provided with plumbing facilities.

Easy to operate—compact, neat and serviceable. Mounted on ball bearing casters. Occupies about 30 inches square when folded. Will last a life time. Fifteen minutes after lighting the burner, the copper coils produce sufficient hot water for a hot bath. In time of sickness, will pay for itself a hundred times over.
281 E 6424—Tub is 5 ft. long, 30 in. wide. Heavy sheet steel. White enamel paint finish. Hardwood rim—no other wood parts—frame and platform durably built of steel. Nickel-plated heater, with heavy galvanized steel lining. Water is heated by copper coils, installed directly over the burner and completely absorbing all the heat in the flame. State whether wanted for gas, kerosene or gasoline. Furnished with 4 ft. of hose and hose connection. Soap dish not furnished. Ship. wt., about 170 lbs. Price complete as described..... **\$38.90**
Shipped from Factory in Southern Michigan.

Middleton Steel Bath Tub of heavy sheet steel. Finished white enamel paint inside, blue enamel outside. Three-inch Oak top rim. Waste and overflow pipe.
281 E 6420—Length, 4½ ft. Ship. wt., 75 lbs. Each..... **\$11.00**
281 E 6421—Length, 5 ft. Ship. wt., 80 lbs. Each..... **11.40**
281 E 6422—Length, 5½ ft. Ship. wt., 90 lbs. Each..... **11.60**
Shipped from Factory in Southern Michigan.
Bath cock and nickel-plated supply pipes, shown below.

Fuller Double Bath Cock

Solid brass, nickel-plated. Has nickel-plated lever cup on top, for holding rings or soap. Spigot outlet for shower bath tubing. Shipping weight, 9 pounds.
81 E 5470—Fitted with rough brass tail piece for ½-inch lead or ½-in. iron pipe connection. **\$4.40**
81 E 5471—Fitted with nickel-plated ball offset connection for ½-inch supply pipes. Each..... **\$4.70**

Bath Supply Pipes

81 E 6521—For Bath tubs. Made of solid brass, nickel-plated. Will withstand any city water pressure. Threaded for ½-inch iron pipe connection. Length, about 20 in. Complete with nickel-plated floor flanges. Shipping wt., 2 pounds. Per pair..... **\$1.20**

Quick-Presson Bath Cock

Solid brass, nickel-plated. China handles. Quick closing with quarter turn of handles. Spigot for bath tubing.
81 E 5474—Fitted with ball offset connections for ½-inch iron pipe connection. Ship. weight, 4½ lbs. Each..... **\$4.30**
81 E 5473—Fitted with rough brass tail piece for ½-inch iron pipe connection. Each..... **\$3.75**

Combination Bath Waste and Overflow

81 E 6520—Built-up construction, with slip joint connections. Made of brass nickel-plated. With rubber stopper chain and floor flange. Will fit any standard bath tub. For lead pipe connection. Shipping weight, 3 lbs. Each..... **\$2.50**

Kitchen Sinks



Windsor Deep Rim Sink

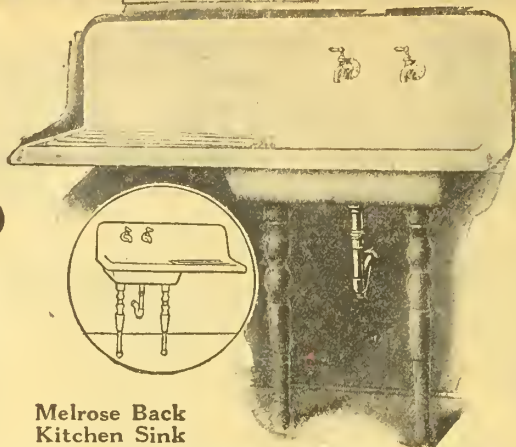
The entire sink and back is made in one solid piece, cast from the best grade of grey iron, white porcelain enameled. Length, 54 inches. Width, 20 inches. Height, of back, 12 inches.

Sink has waste outlet in center and nickel-plated strainer. Furnished with concealed wall hangers for attaching to wall. Height of legs is adjustable.

Made either with left or right hand drain board. Shipping weight, about 235 pounds. Prices do not include trap or faucets.

281 E 6661—Sink only. Left hand drain board. With cast iron concealed wall hangers and ornamental legs. \$53.60

281 E 6663—Sink only. Right hand drain board. With wall hangers and ornamental legs. Each. \$53.60



Melrose Back Kitchen Sink

White porcelain enameled iron sink. Heavy roll rim construction. Cast in one piece, no seams. Suspended from wall, on heavy concealed iron hangers.

Prices do not include faucets, trap or iron legs. Size of sink, 20 by 30 in. Length of drain board, 24 in. Height of back, 12 in. Total length, 54 in. Shipping weight, 200 lbs.

281 E 6643—Left hand drain board. \$29.30

281 E 6642—Right hand drain board. Each. \$29.30

Kitchenette Sinks

Total length, 44 in. sink, 20x20 in., drain board 24 in. long, back 12 in. high. Ship. wt., 165 lbs.

281 E 6632—Left hand drain board. Each. \$27.75

281 E 6633—Right hand drain board. Each. \$27.75

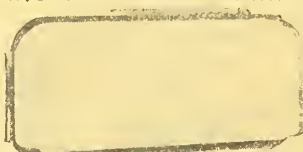
281 E 6640—Cast iron, adjustable, ornamental legs. Ship. wt., 4 lbs. Pair. \$2.80

Enameled Sink Backs

281 E 6664—Cast Iron White Porcelain Enameled Sink Backs.

Height, 12 inches. For use with our cast iron flat rim sinks. Back has holes for two faucets and heavy roll rim. Length, 30 in. Ship. wt., 30 lbs.

Each. \$5.40



Ashley Flat-Rim Sink

281 E 6660—

White Porcelain-enameled cast iron.

Painted outside.

With strainer, bolts and couplings, for 1 1/4-in. or 1 1/2-in. lead trap. Iron

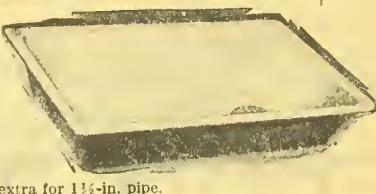
pipe couplings 26c extra for 1 1/2-in. pipe.

Size In. Ship. wt. Each

18x30 60 \$5.45

20x30 70 6.05

20x36 85 9.60



Sink Brackets

Cast iron adjustable. Size, 1 1/2x15 in. Ship. wt., 4 1/2 lbs.

281 E 6705—Painted Pair. \$.67

281 E 6706—Galvanized. Pair. \$ 1.10

Enameled Ware

Shipped from Western Pennsylvania and Chicago Store

Laundry Tubs

Atlas Laundry Tubs

Two Compartment

Prices Subject to Market Changes Shipped from factories in Northern Illinois, Central New York, Eastern Massachusetts, Eastern Maryland, New Jersey and Saint Paul, Minn. Laundry tubs with back.

Shipped from Northern Illinois factory only.

Molded in one solid piece of special granite composition. State color.

Rounded inside corners. Top edges finished with patent metallic rim and wringer guard. Ornamental cast iron

legs.

Furnished in two styles—one with low back, the other with back extending 6 inches above the top rim. The low back does not extend above top of tub, permitting the tub to be equipped with wooden cover when not in use.

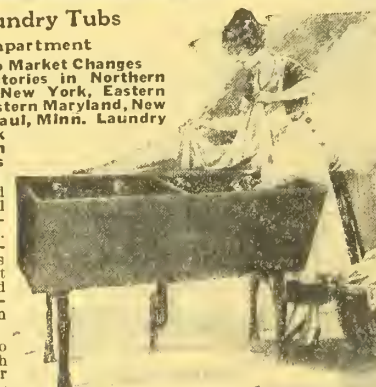
Prices quoted below do not include faucets or traps. State length wanted.

Length In. Width In. Depth In. Ship. wt. lbs.

48 24 14 400

54 24 14 450

60 24 14 475



281 E 6694 Without Back Each \$16.95

281 E 6695 With 6 in. Back Each \$20.65

281 E 6696 With 12 in. Back Each \$27.35

For 1 and 3-compartment tubs, see our Plumbing and Heating Catalog.

281 E 6863—Short Lead S Trap, 1 1/2 inch, for above tub. \$1.20

For iron pipe connections. Ship. wt., 5 lbs. Each.

281 E 6866—Lead P traps with 1 1/2 inch brass threaded outlet for connecting to iron pipe. Ship. wt., 4 lbs. Each. \$1.05

Warren Kerosene Heater

281 E 7817—Contains four heavy copper coils. Tested at a water pressure of 250 lbs. Half turn of the coils utilizes all heat and prevents back drafts.

Reservoir holds 1 gal. kerosene, which lasts 12 hours. Height, 25 1/2 inches. Ship. wt., 60 lbs. Each. \$26.50

Easton Gas Heater

281 E 7822—For quickly heating water in galvanized range boilers. Burns gas. Cast iron jacket, top and base. Double coil of heavy, seamless copper in one piece. Couplings for 3/4-in. iron water pipe. Gas valve tapped for 1/2-in. pipe.

Height, 15 in. Diam., 7 in. Ship. wt., 25 lbs. Each. \$10.50

Macon Gas Heater

281 E 7821—For heating water in galvanized range boiler. Burns gas. Heavy blue iron casing with cast iron top and bottom. Coil made of heavy, seamless drawn copper in one piece. Couplings for 3/4-in. iron water pipe. Gas valve tapped for 1/2-in. pipe.

Height, 15 in. Diam., 7 in. Ship. wt., 25 lbs. Each. \$6.75

Horse Shoe Burner and Valve

281 E 7820—For use under range boilers, tanks, stoves, etc. Burner sets at center of boiler. Gas adjustment is obtained by drilling out opening in the valve. Air is adjusted by slipping the 3/4-inch pipe between the burner and valve in and out of the mixer shell. Pipe is locked in the position by a screw. Shipping weight, about four lbs.

Price complete, Burner, Valve and Mixer with set screw, for 3/4-inch gas connection, each. \$1.20

Compression Bibbs

High-Grade Bibbs Polished Brass or Nickel-plated. Fitted for iron pipe connection.

Size In. Ship. Wt. Lbs. Each

1/2 1/4 \$.98

3/4 1/2 \$ 1.23

1 3/4 \$ 1.35

2 1/2 \$ 1.46

3 1/2 \$ 1.87

4 1/2 \$ 1.07

5 1/2 \$ 1.45

6 1/2 \$ 1.65

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White Enameled

White Opal Glass Towel Bars

| Article No. | Size Bar | Length | Each |
|-------------|----------|--------|--------|
| 81E6378 | 1/4 in. | 15 in. | \$1.30 |
| 81E6379 | 1/4 in. | 18 in. | 1.44 |
| 81E6382 | 1/4 in. | 18 in. | 2.38 |
| 81E6383 | 1 in. | 24 in. | 2.60 |

Shipping weight, 3 to 5 1/2 pounds.

White Opal Glass Shelf

81E6364 - Size, 18x5

Shp. wt., 5 1/2 lbs. Each.... \$3.25

Comb and Brush Tray

81E6355

Shp. wt., 1 1/2 lbs. Each \$1.45

Bath - Rim Soap Cup

81E6343 - Shp. wt., 1 lb. Ea....85c

Wall Soap Holder

81E6347

Shp. wt., 1 lb. Each.... \$1.28

Double Wall Hook

81E6411

Shp. wt., 4 oz. Ea.20c

Toilet Paper Holder

81E6392 - Shp. wt., 1/2 lbs. Each.90c

Wall Glass Holder

81E6323

Shp. wt., 1/2 lb. Each.83c

Glass and Toothbrush Holder

81E6336

Shp. wt., 1/4 lb. Ea.\$1.15

81E6391

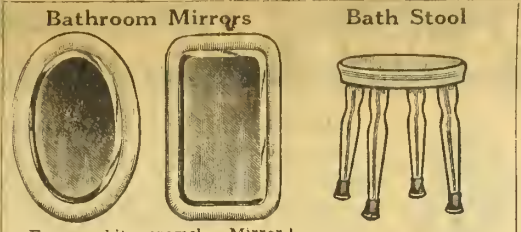
34c

81E6390 - Toilet paper holder. Brass, nickel-plated. width, 4 1/2 in. Shp. wt. 6 oz. Each..... 34c

81E6344 - Soap cup for rim of bath tub. Brass, nickel-plated. Shp. wt. 13 oz. Each.....53c

81E6310 - Wall soap cup; brass, nickel-plated. Shp. wt., 4 oz. Each..... 26c

Screws Included On All These Items



Bathroom Mirrors

Frame white enamel. Mirror beveled plate glass. Sizes given are of the glass only.

81E6393 - Oval Design: 10x16, 12x20, 14x24, 18x24, 18x30 \$3.65 \$4.90 \$6.25 \$8.65 \$10.40

81E6402 - Oblong Design with round corners: 10x16, 12x20, 14x24, 18x24, 18x30 \$3.70 \$4.95 \$6.35 \$8.70 \$10.50

81E6404 - Oblong Design with square corners: 10x16, 12x20, 14x24, 18x24, 18x30 \$3.30 \$4.65 \$6.10 \$8.40 \$10.15

Bath Stool

White Enameled

81E6400 - Can be used in the tub or for dressing. Rubber-tipped legs. Diameter, about 12 in. Height, 15 in. Shp. wt., 6 lbs. Each.....\$2.48

Portable Shower Bath

81E6506 - Galv. steel, 5-gal. tank with a rubber shower hose with adjustable loop for a tub. Length, 20 inches; diameter, 10 inches. Flow of water is regulated by valve beneath tank, to which rubber tube is connected. Shp. wt., 6 1/2 lbs. Each..... \$3.75

Bath Spray

81E6505 - Nickel-plated brass shower head, with rubber rim. Rubber tubing, 5 ft. long, with bulb end. Attaches to any bath tub faucet. Shp. wt., 1 lb. Each.....75c

Rubber Hose

81E6220 - For syringes, bath sprays, etc. Corrugated. Shp. wt., 2 to 7 oz. per foot. Diam. in 3/16 1/4 5/16 3/8 1/2 Per Foot. 5c 7c 9c 11c 13c

81E6314 - Wall soap cup, brass, nickel-plated. Shp. wt., 10 oz. Each..... 60c

81E6315 - Wall soap dish. Brass, nickel-plated. Removable soap drain. Shp. wt., 1 lb. Ea \$1.20

81E6328 Wall toilet brush holder; brass, nickel-plated. Shp. wt., 1 lb. Ea \$1.06

81E6324 Wall toothbrush and tumbler holder; brass, nickel-plated. Shp. wt., 12 oz. Each.....84c

81E6318 - Wall tumbler holder. Brass, nickel-plated. Shp. wt., 8 oz. Each..... 48c

Glass and Nickle Plated

81E6370 - Towel Bar, 1/4 in. brass tubing, nickel-plated. Length, in. 15 18 24 Shp. wt., oz. 8 9 11 Each.....70c 73c 82c

Crystal Glass Towel Bar

Brass brackets, nickel-plated. Diam. of bar, 3/8 in.

81E6376

| Length In. | Shp. Wt. Lbs. | Each |
|------------|---------------|--------|
| 15 | 1 1/4 | \$.94 |
| 18 | 2 | 1.03 |

White Opal Glass Bar

81E6377

| Length In. | Shp. Wt. Lbs. | Each |
|------------|---------------|--------|
| 15 | 1 1/4 | \$1.10 |
| 18 | 2 | 1.20 |

81E6373 - Towel Bar. Made of 1/4-in. tubing, Nickel-plated. Length, 18 inches. Shp. wt., 8 ounces. Each.....55c

81E6372 - Heavy 1/4-in. brass tubing, Nickel-plated. Shp. wt., 6 to 8 lbs. Length, inches..... 15 18 24 Each..... 48c 55c 63c

Bath Seat

81E6405 - Polished oak, Nickel-plated, rubber-covered hangers to fit over rim of any tub. Substantially made. Shp. wt., 6 lbs. Each.....99c

81E6406 - White enameled seat. Otherwise same as above. Each.....\$1.10

81E6384 - Towel Rack, three swinging arms, brass nickel plated. Length, 12 1/2 in. Shp. wt., 1 lb. Each.....97c

Heavy Crystal Glass and White Opal Towel Bars, 1 in. thick. Brass brackets, nickel-plated.

| Length | Shp. Wt. | 81E6380 Crystal Glass | 81E6381 White Opal Glass |
|--------|------------|-----------------------|--------------------------|
| 18 in. | 2 1/2 lbs. | \$2.05 | \$2.15 |
| 20 in. | 2 3/4 lbs. | 2.20 | 2.30 |
| 24 in. | 3 lbs. | 2.35 | 2.45 |

Plate Glass Shelf, with ground edges. Cast brass brackets, nickel-plated.

81E6361

| Width In. | Length In. | Wt. Lbs. | Each |
|-----------|------------|----------|--------|
| 5 | 18 | 4 | \$2.14 |
| 5 | 24 | 5 | 2.38 |

White Opal Glass Shelf

81E6363

| Width In. | Length In. | Weight Lbs. | Each |
|-----------|------------|-------------|--------|
| 5 | 18 | 4 | \$3.25 |
| 5 | 24 | 5 | 3.50 |

81E6319 - Tumbler holder; brass, nickel-plated. Shp. wt., 8 oz. Price.....64c

Soil Pipe and Fittings

All soil pipe and fittings shown on this page are of the best quality cast iron, free from flaws. Heavily coated, both inside and out, with coal tar. Dimensions given are inside diameter. Note - Standard pipe and fittings will not interchange with the extra heavy. So use one kind exclusively.

Prices Subject to Market Changes.

Single Hub Soil Pipe

81E6760 - Standard weight. Size, 2 in. Wt. 17 1/2 pounds. Per 5-ft. length.....\$.76

Size, 4 in. Wt. 36 lbs. Per 5-ft. length..... 1.35

81E6761 - Extra Heavy Weight

Size, 2 in. Wt. 27 1/2 lbs. Per 5-ft. length..... \$.96

Size, 4 in. Wt. 65 lbs. Per 5-ft. length..... 2.05

Double Hub Soil Pipe

81E6762 - Standard Weight

Size, 2 in. Wt. 17 1/2 lbs. Per 5-ft. length..... \$.82

Size, 4 in. Wt. 36 lbs. Per 5-ft. length..... 1.41

81E6763 - Extra Heavy Weight

Size, 2 in. Wt. 27 1/2 lbs. Per 5-ft. length..... \$1.02

Size, 4 in. Wt. 65 lbs. Per 5-ft. length..... 2.10

Check Valve Leathers

81E5985 - Sizes are for both the outside diameter of the leathers and corresponding size of the cylinder. Shipping weight, 6 to 11 ounces per dozen.

| For Cylinder Inside Diam. | Outside Diam. of Leather | Each |
|---------------------------|--------------------------|------|
| 2 inches | 2 1/2 inches | 8c |
| 2 1/2 inches | 2 3/4 inches | 10c |
| 2 3/4 inches | 3 inches | 12c |
| 3 inches | 3 1/4 inches | 13c |
| 3 1/4 inches | 3 1/2 inches | 15c |
| 3 1/2 inches | 4 inches | 21c |
| 4 inches | 4 1/2 inches | 27c |

Send for This Book of Modern Plumbing and Heating Fixtures It's Free

Plumbing Heating

Complete System Sold on Easy Payments

Cleanout Plugs

81E6841 - Cast iron clean out plugs, brass screw cover. For Standard or extra heavy fittings. Size, 2-inch. Each.....32c

Size, 4-inch. Each.....53c

Soil Pipe Rests

81E6781 Extra Heavy

2-in. Shp. wt., 4 lbs.. 26c

4-in. Shp. wt., 8 lbs.. 29c

Tapped Sanitary T Branch

81E6798 - Standard

| Size In. | Shp. Wt. Lbs. | Each |
|----------|---------------|------|
| 2x1 1/2 | 5 | 48c |
| 4x1 1/2 | 7 | 67c |
| 4x2 | 7 | 67c |

Adjustable Iron Closet Bend

81E6890 - Adjustable neck inlet, fits flush with floor. Bend is 18 inches long. Tapped on both sides for 1 1/2 in. iron pipe thread. Shp. wt., 20 lbs. For Standard or Extra Heavy Fittings. Each.....\$1.80

Y Branch

81E6793 - Extra Heavy

| Size In. | Shp. Wt. Lbs. | Each |
|----------|---------------|------|
| 2x2 | 5 | 35c |
| 4x2 | 10 1/2 | 54c |
| 4x4 | 14 1/2 | 73c |

Anti-Freezing Lift Pump

\$6.90 and up

A substantial pump for windmill or hand use, with 4 feet set length, for either open or dug wells up to 30 feet in depth. Prices are with iron cylinder. Stroke, 6 in. Average shipping weight, 70 to 80 pounds.

81E5821 - Cylinder 3 in.; for pipe 1 1/4 inches. Each.....\$6.90

81E5822 - Cylinder 3 1/2 in.; for pipe 1 1/2 inches. Each.....\$9.50

81E5823 - Cylinder 4 in.; for pipe 2 inches. Each.....\$9.60

Standard Only

Without Set-Length

For wells up to 100 feet deep. Fitted for 1 1/2, 1 3/4 or 2 inch pipe. Shipping weight, 62 and 60 pounds.

81E5848 - With 6 in. stroke. Each.....\$4.75

81E5849 - With 10 inch stroke. Each.....\$5.10

Crimped Plunger Leathers

Made of fine selected oak-tanned stock.

81E5984 - Please Note: Size corresponds to the inside diameter of cylinder.

| Size, In. | Each | Size, In. | Each |
|-----------|------|-----------|------|
| 1 1/4 | 11c | 3 1/2 | 32c |
| 2 1/4 | 14c | 4 | 41c |
| 2 3/4 | 15c | 4 1/2 | 50c |
| 3 | 17c | 5 | 63c |
| 3 1/4 | 19c | 6 | 84c |
| 3 1/2 | 22c | | |

Plumber's Oakum

81E5646 - Rope Oakum, spun long fiber. About 50 lbs. coil. Per coil.....\$5.75

Per lb......12

Windsor Air Moisteners

Do you suffer from sore throat and have frequent colds? Probably you could relieve yourself of much of this trouble by putting a Windsor Air Moistener behind each radiator in your home. It keeps the right amount of moisture in the air.

Lack of moisture, warm dry air from your heating plant will often cause furniture to separate at the joints and the varnish to check. The remedy is to moisten the warm air as it comes from the radiator.

Hang the Moistener back of the radiator where it is out of sight, yet easily filled with water. Can also be placed above or in a hot air register.

81E7936 - Gold-bronzed, galvanized steel Holds four quarts. Large evaporating capacity Shipping weight, 5 pounds. Each.....95c

Brass Lined Cylinder

81E5919 - Throws a large volume of water for clearing wells not over 20 feet deep. Heavy iron cock spout with 3/4-inch hose coupling. Back of spout tapped for 1-inch pipe. Has 3-inch brass-lined body. Fitted for 1 1/4-inch suction pipe. Shipping weight, 30 pounds. Each.....\$7.40

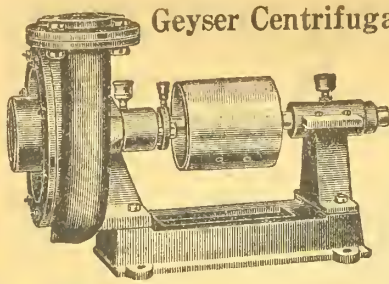
Force Pump Standard Windmill Top

Oscillating tumbler, link, pivoted at base, relieves the cap from strain. For wells up to 100 ft. deep. Back of spout tapped for 1 1/4-inch pipe. Fitted for 1 1/4, 1 1/2, or 2 inch pipe. With 3/4-inch hose coupling on spout. Shipping weight, 66 and 75 pounds.

81E5854

Stroke, 6 in. Each.....\$7.45

81E5856 - Stroke, 10 in. Each.....\$7.95



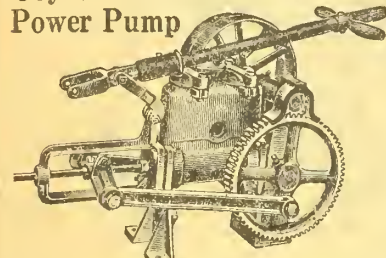
Geyser Centrifugal Pump

For irrigation, drainage and contractors' use. Used extensively for drainage and irrigation service and other work where a moderate lift of a large volume of water is desired. Recommended for all service where the total head does not exceed 65 feet and where the pump can be placed not more than 20 feet from the surface of the water. Large pulley, supported on either side by long bearings provided with grease cups. Extra long packing gland with grease cup reduces friction in the stuffing box to a minimum. Careful attention must be given to the following: Pumps must be run at the speed indicated, at which speed they will deliver the volume of water shown, to an elevation of 40 feet above the source of supply. Extra allowances must be made for long horizontal pipe lines. Lower heads or elevations require less H. P. and lower speeds; higher heads more power and higher speeds. Centrifugal pumps must be primed, that is, the suction pipe and pump must be completely filled with water before the pump is started. Unless the water being pumped flows to the pump by gravity, a foot valve should be used having a free area equal to that of the suction pipe. Use graphite or lead and oil on the suction pipe threads so the joints will be absolutely tight. Use a good grade of graphite or other piston packing around the shaft. Be sure the packing gland is well lubricated and drawn tight. When facing the inlet side, the impeller wheel turns counter clockwise. Write us for any information concerning the H. P., speeds, etc., of this or any other power pump.

Shipped from Factory in Northern Indiana.
281 E 5964

Table with 7 columns: Discharge Inches, Suction In., Cap. Gal. Min., Speed R. P. M. for 40-ft. head, Diam. & Face of Pulley, Ship. Wt. Lbs., Price. Rows include various pump models and their specifications.

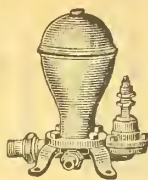
Geyser Junior Hand or Power Pump



parts are accessible. Reversed head allows suction or discharge from either side. Cylinder 3 in. diam., tight and loose pulleys for 2-inch belt. Cap. 12 gal. per min. 40 r.p.m. Fitted for 1 1/4 inch suction and 1 1/4 inch discharge. Tapped with 1/4-inch opening for air valve if pump is used with pressure tank. Ship. wt., 145 lbs. \$41.20
281 E 5844—Price
281 E 5845—Price, with air pumping attachment for pneumatic water supply systems. \$42.55
Shipped from Factory in Northern Ohio and from Chicago Store.

For pressure not over 75 pounds or not over 175 feet total head (lift and force). Must not be placed more than 20 feet above the surface of water. Requires from 3/4 to 1 1/4 H. P. according to speed and total head or pressure. Latest design. To use as hand pump, pull out pin which connects side crank arms to cross head and connect up hand lever. Has machine cut gear and pinion. Waterways are short, direct and of large area. The suction valves are placed slightly below suction openings so pump will hold its priming. All parts are accessible. Reversed head allows suction or discharge from either side. Cylinder 3 in. diam., tight and loose pulleys for 2-inch belt. Cap. 12 gal. per min. 40 r.p.m. Fitted for 1 1/4 inch suction and 1 1/4 inch discharge. Tapped with 1/4-inch opening for air valve if pump is used with pressure tank. Ship. wt., 145 lbs. \$41.20
281 E 5844—Price
281 E 5845—Price, with air pumping attachment for pneumatic water supply systems. \$42.55
Shipped from Factory in Northern Ohio and from Chicago Store.

Power Pumps

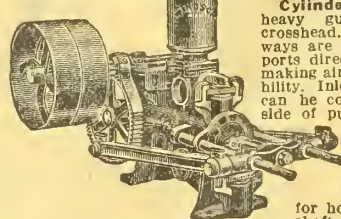


Automatic Hydraulic Ram

Will pump water continuously to a tank or a reservoir. Requires a fall of 2 ft. or more between the source of water supply, lake or stream, and location of ram. The ram will then automatically deliver a large proportion of water a great distance. Amount of water delivered depends upon the height of the fall and delivery. Large size rams are best where there is an abundant water supply. Very durable. Fresh water constantly in your home, stable, garden or watering trough without inconvenience and cost. Write for our ram circular. Mention size.

Table with 6 columns: Size, Water Required Per Minute, Size Pipe Drive, Reqd. Disch., Ship. Wt., Each. Rows include various pump models and their specifications.

Windsor Power Pump



Cylinder — Brass lined; 2 heavy guide rods supports crosshead. Large free water ways are provided with outlet ports directly above the inlet, making air binding an impossibility. Inlet and discharge pipe can be connected from either side of pump.

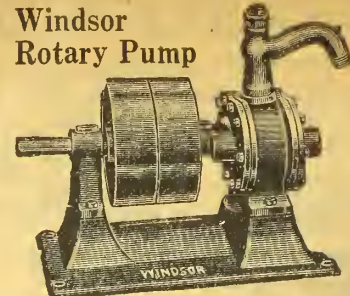
Power Head Very strong and substantial, securely bolted to head of cylinder with long bearing for both pinion and crank shaft. Valves are all quickly and easily accessible and are unique in their construction. Brass valve seat is simply dropped into its milled receptacle. The seat is reversible. Brass valve has spiral wings causing it to rotate every time valve opens. This prevents dirt and scale from becoming fast on the valve seat.

Air Chamber — Brass gland. Deep pocket. Stuffing Box — Brass gland. Fastened to cylinder by four bolts. Steady pressure at all times. Plunger — Steel with highest grade of oak tanned cupped leather. Gears — Very strong, and well guarded, quiet running. Has steel pinion, and cast iron crank gear. Gear ratio, five to one on all sizes but 6x12, which is six to one. Crank Arms — Heavy and well rimmed to withstand heavy work. 281 E 5986 — Mention diam. and stroke when ordering.

Table with 7 columns: Diam. Piston Stroke, Max. Cap. Gal. Per Min., Revolutions Per Min., Working Pressure, Suction Disch. Size, Ship. Wt., Price. Rows include various pump models and their specifications.

Prices of pumps fitted for pneumatic water supply systems on request. Shipped from Factory in Northern Illinois.

Windsor Rotary Pump



\$15.60

High base with end open, allows for pipe fitting without disconnecting pump or moving base. A pipe flange, which can be removed by simply loosening two set screws is used to connect on to the pipe. The pump gears are quiet and smooth running.

Long Bearings are provided in the flange housing and are cast solid on bearing ends. This assures non-leaking from end of shaft. Independent Side Plates are used so that it is necessary to remove the plates only in case of wear. Used for irrigating, fire protection, etc. Moves a large volume of water with a minimum of power. For pumping acids, bronze pumps should be used, and metal valves when used for hot liquid.

Table with 7 columns: Number, Suction Inches, Disch. Inches, Size, Cap. 100 R. P. M., Price. Rows include various pump models and their specifications.

Shipped from Factory in Northern Illinois.

Horizontal Force Pumps

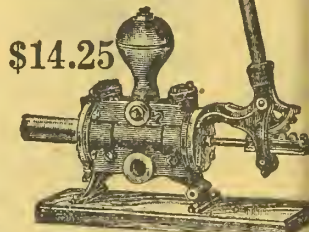
For Water Supply Systems

Easy working, compact and substantially designed. For pumping water from cisterns, shallow wells, etc., to elevated tanks, pneumatic water supply systems, etc. Also adapted for fire protection, filling boilers, as a deck pump and for many other purposes. Has a geared drive. A smooth, easy operating pump. Has a cushion air chamber, brass piston rod and valve seats. Tapped for 1 1/4 in. suction pipe and 1 in. discharge. Mounted on board base, about 7 1/2 x 24 in. Ship. wt., 58 lbs.

181 E 5937 — With 3-inch brass lined cylinder. (Without air attachment.) Each.....\$14.25

With Air Attachment

181 E 5938 — With 3-inch brass lined cylinder and air attachment as shown above. Will pump water and air, or water only, as desired. For pneumatic water supply system. Ship. wt., 6 lbs. Each.....\$17.25



Hand Pumps



Anti-Freezing Lift Pump

\$4.98

181 E 5800 — Medium Weight Pump. With 4 ft. set length. For wells not over 30 ft. deep. 3x10 in. iron cylinder with wrought iron set length. Stroke, 6 in. Fitted for 1 1/4 in. suction pipe. Ship. wt., 55 lbs. Each.....\$4.98

Heavy anti-freezing well pump with 4 ft. set length, for wells up to 30 ft. deep. Prices are for pump with iron cylinder. Stroke, 6 in. Ship. wt., 63 to 75 lbs.
181 E 5804 — Cylinder, 2 1/2 in.; for pipe 1 1/4 in. Each \$6.85
181 E 5805 — Cylinder, 3 in.; for pipe 1 1/2 in. Each \$6.90
181 E 5806 — Cylinder, 3 1/2 in.; for pipe 1 3/4 in. Each \$6.95
181 E 5807 — Cylinder, 4 in.; for pipe 2 in. Each \$8.45
181 E 5840 — Standard only without the set length or cylinder. Stroke, 6 in. Fitted for 1 1/4, 1 1/2, or 2 in. pipe. Ship. wt., 40 lbs. Each \$3.45

Anti-Freezing Hand Force Pump

\$9.35

Heavy Force Pump with an air chamber in top of stock and 4 ft. set length. Has a brass stuffing box, polished piston and is substantially made throughout. For wells up to 30 ft. deep. Prices are for pumps with iron cylinders. Stroke, 6 in. With 3/4 in. hose connection. Back of spout is tapped for 1 1/4 in. pipe. Ship. wt., 80 to 95 lbs.
181 E 5811 — Cylinder, 3 in. for pipe 1 1/4 in. Each \$9.35
181 E 5812 — Cylinder, 3 1/2 in. for pipe 1 1/2 in. Each \$9.85
181 E 5813 — Cylinder, 4 in. for pipe 2 in. Each \$11.35

Anti-Freezing Force Pump Wind Mill Top

\$10.25

With 4 ft. set length. For wells up to 30 ft. deep. Has a cock spout with 3/4 inch hose coupling. Price includes pump standard only, with extension below pump base including three-way valve as shown. Spout of pump is fitted with 3/8 in. hose coupling. Pump is tapped for 1 1/4 in. discharge pipe and 1 1/4, 1 1/2, or 2 in. suction pipe. Give size of suction pipe. Length, from platform to lower elbow, 4 ft. 10 in. Width of set length, 11 inches. Ship. wt., 100 lbs. Give pipe size.
181 E 5829 — Cylinder, 3 in.; pipe 1 1/4 in. Each \$10.25
181 E 5830 — Cylinder, 3 1/2 in.; pipe 1 1/2 in. Each \$12.40
181 E 5831 — Cylinder, 4 in.; for pipe 2 in. Each \$12.60

Windmill Force Pump With Three-Way Valve

\$12.75

Anti-freezing Pump, with improved distributing valve for any depth well. The distributing lower valve is operated the same as an ordinary globe valve, and by turning wheel handle the water may be directed through underground pipe.

Kitchen Force Pump

\$6.60

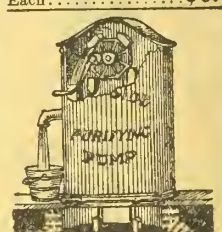


Pitcher Spout Pump

\$2.40



481 E 5915 — Strongly built, well finished. Brass cylinder, 3 in. diameter. For wells and cisterns not over 20 feet deep. Fitted for 1 1/4-inch suction pipe and 1-inch discharge. Faucets threaded for 3/4-inch hose connection. Pipe can be connected to top outlet for pumping to a storage tank. Ship. wt., 20 lbs. Each.....\$6.60



Lakeside Purifying Pump

181 E 6147 — Has painted, galvanized steel case with cast iron base. Water is brought up in galvanized buckets which, when passing down, carry air into the water purifying it. For wells over 1 inches in diameter and up to 3 feet deep. With chain buckets and iron bottom wheel. Ready for use. Ship. wt., about 60 lbs. (Give size for well..... 10 ft. 15 ft. Each.....\$10.60 \$12.40 For Well..... 20 ft. 25 ft. 30 ft. Each.....\$13.00 \$16.10 \$17.90
181 E 6137 — Iron platform for above. Size, 33x40 in. Ship. wt., 9 lbs. Each.....\$8.70

Well Cylinders

Size cylinder for wells 20 to 40 feet deep, 3 1/4 to 4 inches. Size cylinder for wells 40 to 80 feet, 3 1/2 to 3 3/4 inches. Size cylinder for wells deeper than 80 feet, 2 1/2 to 3 inches. For windmills a somewhat smaller cylinder should be used, but this will depend on the size of your mill. The 10 inch and 12 inch cylinders have a 6 inch stroke, and the 16 inch cylinders have a 10 inch stroke. They are usually fitted with 1 1/2 inch pipe for all cylinders smaller than 3 1/2 inch, and 1 1/2 inch or 2 inch pipe for cylinders 3 1/2 inch to 4 inch. Give pipe size when ordering.

Table with 6 columns: Diam. of Bore, 10 inch Cylinder, 12 inch Cylinder, 16 inch Cylinder, 10 inch Cylinder, 12 inch Cylinder, 16 inch Cylinder. Rows include various pump models and their specifications.

Brass Screen and Jacket

Made of high-grade heavy wrought iron pipe. Perforated and galvanized; covered with a durable perforated brass jacket. We have these points in two grades. The point in common use is No. 60 gauge. The very fine No. 100 gauge is used for quicksand, etc. The terms No. 60 and No. 100 refer to the number of wire meshes to the inch. Made in sizes ranging from 24 to 48 inches, with pipe diameters from 1 1/4 to 2 inches.

481 E 5990 — No. 60 Gauge.
481 E 5991 — No. 100 Gauge.
Give article number when ordering.

Drive Well Points

Table with 6 columns: Diam. Pipe Size In., Length Inches, Ship. Weight Pounds, No. 60 Gauge Each, No. 100 Gauge Each. Rows include various pump models and their specifications.

Drive Caps for Well Points

Table with 3 columns: Pipe Size In., Ship. Wt., Lbs., Each. Rows include various pump models and their specifications.

Lever Handle Stop and Waste Cocks

81E5421—Solid brass. For iron pipe.

| Size In. | Wt. Lbs. | Each |
|----------|----------|---------|
| 1/2 | 1 1/4 | \$.65 |
| 3/4 | 1 1/2 | \$.90 |
| 1 | 1 3/4 | \$ 1.60 |
| 1 1/4 | 2 1/4 | \$ 2.70 |
| 1 1/2 | 3 1/2 | \$ 4.50 |

Handle Stop and Waste Cocks

81E5420—For iron pipe. Solid brass.

| Pipe In. | Wt. Lbs. | Each |
|----------|----------|---------|
| 1/2 | 1 | \$.65 |
| 3/4 | 1 1/4 | \$.90 |
| 1 | 1 3/4 | \$ 1.60 |
| 1 1/4 | 2 1/4 | \$ 2.70 |

Heavy Square Head Brass Steam Cocks

81E5416—All brass. Tight fitting round key.

| Pipe In. | Wt. Lbs. | Each |
|----------|----------|---------|
| 1/2 | 1 1/4 | \$.48 |
| 3/4 | 1 1/2 | \$.57 |
| 1 | 1 3/4 | \$.97 |
| 1 1/4 | 2 1/4 | \$ 1.35 |
| 1 1/2 | 3 1/2 | \$ 2.75 |
| 2 | 5 1/2 | \$ 4.15 |

Square Head Three-Way Cocks

81E5417—All brass. Tight fitting round key.

| Pipe In. | Wt. Lbs. | Each |
|----------|----------|---------|
| 1/2 | 1 1/4 | \$ 1.53 |
| 3/4 | 1 1/2 | \$ 2.33 |
| 1 | 1 3/4 | \$ 3.50 |
| 1 1/4 | 2 1/4 | \$ 4.40 |
| 1 1/2 | 3 1/2 | \$ 6.70 |

Drain Valves

81E5431—For use as drain valves in range hollers, pipe lines, or where they are not subject to constant operations. Made in 1/2 inch size only. Outlet threaded for hose coupling. Shipping weight, 1 pound. Price, Each.....**65c**

Loose Key Brass Sill Cock

81E5427—Solid brass. Nickel plated with flange. For 1/2 in. pipe and 1/4 in. garden hose. Ship. wt., 1 lb. Mention pipe size. Each.....**99c**

Compression Stop and Waste Cock

The only style stop and waste cock that can be repaired. Merely inserting a new washer will stop the leak. Waste is controlled by a thumb screw and operated only when it is desired to drain the piping. Ship. wt., about 1 1/2 lbs. Price, Each.....**1.25**

81E5428—1/2 inch.....**\$.98**

Brass Gauge Cocks

81E5434—Polished with stuffing box. Wood handles. Ship. wt., 8 to 10 ounces. 1/2 in. pipe. Ea. **\$.90**
3/4 in. pipe. Ea. **\$.98**
1 in. pipe. Ea. **\$ 1.10**

Wrought Pipe Nipples

Classification of Short Nipples

| Pipe In. | 81E5380 Black | 81E5381 Galv. |
|----------|---------------|---------------|
| 1/2 | 3 c | 2 1/2 c |
| 3/4 | 3 c | 2 1/2 c |
| 1 | 4 c | 3 c |
| 1 1/4 | 5 c | 4 c |
| 1 1/2 | 6 c | 5 c |
| 2 | 10 c | 9 c |
| 2 1/2 | 15 c | 14 c |
| 3 | 20 c | 18 c |
| 3 1/2 | 25 c | 23 c |
| 4 | 30 c | 28 c |
| 4 1/2 | 35 c | 33 c |
| 5 | 40 c | 38 c |
| 5 1/2 | 45 c | 43 c |

Short Nipples

| Pipe In. | 81E5382 Black | 81E5383 Galv. |
|----------|---------------|---------------|
| 1/2 | 3 c | 2 1/2 c |
| 3/4 | 3 c | 2 1/2 c |
| 1 | 4 c | 3 c |
| 1 1/4 | 5 c | 4 c |
| 1 1/2 | 6 c | 5 c |
| 2 | 10 c | 9 c |
| 2 1/2 | 15 c | 14 c |
| 3 | 20 c | 18 c |
| 3 1/2 | 25 c | 23 c |
| 4 | 30 c | 28 c |
| 4 1/2 | 35 c | 33 c |
| 5 | 40 c | 38 c |
| 5 1/2 | 45 c | 43 c |

Long Nipples

| Pipe In. | 81E5382 Black | 81E5383 Galv. |
|----------|---------------|---------------|
| 1/2 | 3 c | 2 1/2 c |
| 3/4 | 3 c | 2 1/2 c |
| 1 | 4 c | 3 c |
| 1 1/4 | 5 c | 4 c |
| 1 1/2 | 6 c | 5 c |
| 2 | 10 c | 9 c |
| 2 1/2 | 15 c | 14 c |
| 3 | 20 c | 18 c |
| 3 1/2 | 25 c | 23 c |
| 4 | 30 c | 28 c |
| 4 1/2 | 35 c | 33 c |
| 5 | 40 c | 38 c |
| 5 1/2 | 45 c | 43 c |

Brass Seat Unions

No washer or gasket required. Can be connected and disconnected any number of times without injury to the brass seat. Monkey wrenches can be used. Both ends and the collar are octagon in shape. Used on hot or cold water or steam lines and are especially recommended for gasoline, kerosene and oil work. Should be used on all steam lines, machinery and engines. Pressure up to and including 250 pounds.

| Pipe In. | 81E5392 Black | 81E5393 Galv. |
|----------|---------------|---------------|
| 1/2 | 15 c | 19 c |
| 3/4 | 19 c | 23 c |
| 1 | 23 c | 28 c |
| 1 1/4 | 28 c | 37 c |
| 1 1/2 | 37 c | 56 c |
| 2 | 56 c | 75 c |
| 2 1/2 | 75 c | 93 c |
| 3 | 93 c | 112 c |
| 3 1/2 | 112 c | 131 c |
| 4 | 131 c | 150 c |
| 4 1/2 | 150 c | 169 c |
| 5 | 169 c | 188 c |
| 5 1/2 | 188 c | 207 c |
| 6 | 207 c | 226 c |
| 6 1/2 | 226 c | 245 c |
| 7 | 245 c | 264 c |
| 7 1/2 | 264 c | 283 c |
| 8 | 283 c | 302 c |
| 8 1/2 | 302 c | 321 c |
| 9 | 321 c | 340 c |
| 9 1/2 | 340 c | 359 c |
| 10 | 359 c | 378 c |
| 10 1/2 | 378 c | 397 c |
| 11 | 397 c | 416 c |
| 11 1/2 | 416 c | 435 c |
| 12 | 435 c | 454 c |

Valves - Gauges and Cocks

Steam Gauge

81E7917—For low pressure steam heating boilers. Accurately tested. Black japanned iron case. Size of dial, 3 1/2 in. with brass cock. A syphon should be placed between ship. wt., 3 1/2 lbs. Always use a syphon on steam gauges.

| Mfrs. Size | Ship. Wt. | Each |
|------------|-----------|--------|
| 3 1/2 in. | 2 lbs. | \$2.55 |
| 4 1/2 in. | 3 lbs. | \$2.75 |
| 5 in. | 4 lbs. | \$3.20 |

Steam Gauge

81E5550—High grade Steam Gauge. Japanned case. For stationary engines. Registers up to 200 lbs. With brass cock. Pipe size, 1/4 in.

| Mfrs. Size | Ship. Wt. | Each |
|------------|-----------|--------|
| 3 1/2 in. | 2 lbs. | \$2.55 |
| 4 1/2 in. | 3 lbs. | \$2.75 |
| 5 in. | 4 lbs. | \$3.20 |

Farm Engine Gauge

81E5552—Special gauge for traction and farm engines. with auxiliary spring. Size, 4 1/2 in. with brass cock 1/4 in. pipe size. Japanned case. Registers 300 lbs. Ship. wt., 4 lbs. Always use a Syphon with steam gauges.

| Mfrs. Size | Ship. Wt. | Each |
|------------|-----------|--------|
| 3 1/2 in. | 2 lbs. | \$2.55 |
| 4 1/2 in. | 3 lbs. | \$2.75 |
| 5 in. | 4 lbs. | \$3.20 |

Pop Safety Valves

81E5545—High Pressure Valves. Polished brass. Cannot be easily tampered with. Conform to the requirements of the American Society of Mechanical Engineers. Each valve is carefully tested, set to blow off at 100 lbs.

| Pipe | Horse Power | Wt. Lbs. | Each |
|-------|-------------|----------|---------|
| 1/2 | Under 5 | 1 1/2 | \$4.00 |
| 3/4 | 5 to 10 | 1 1/2 | \$5.00 |
| 1 | 10 to 20 | 3 1/2 | \$6.00 |
| 1 1/4 | 20 to 30 | 4 1/2 | \$7.50 |
| 1 1/2 | 30 to 40 | 7 | \$11.50 |

Pressure Gauge

81E5554—For water supply systems. These gauges are for registering pressure up to 100 pounds. They are strongly made and will stand long service. Single spring type, carefully tested and accurate. For 1/4-inch iron pipe connection. Complete with gauge cock. Size, 3 1/2 in. Ship. wt., 2 1/2 lbs. Each.....**\$2.55**
Size, 4 1/2 in. Ship. wt., 3 1/2 lbs. Each.....**2.75**
Size, 5 in. Ship. wt., 4 1/2 lbs. Each.....**3.20**

Chime Steam Whistle

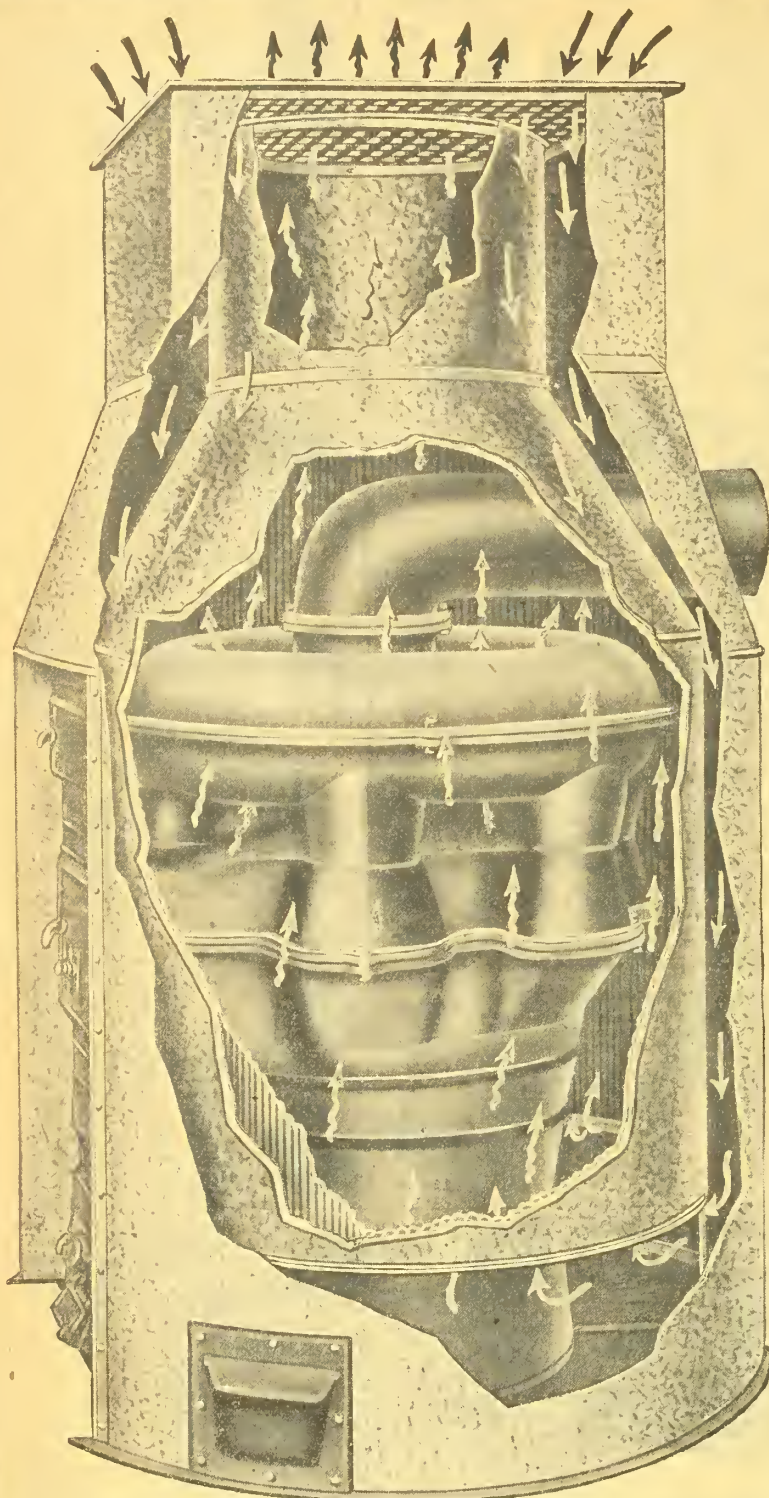
81E5542—More penetrating than the common whistling. Produces three distinct tones. Solid brass with brass valve. Ship. wt., 2 1/2 to 10 1/2 lbs.

| Diam. of Bell In. | Size of Pipe In. | Average Height In. | Each |
|-------------------|------------------|--------------------|---------|
| 1 1/2 | 1 1/2 | 8 1/2 | \$6.60 |
| 2 | 2 | 11 | \$10.45 |
| 2 1/2 | 2 1/2 | 13 1/2 | \$17.00 |

Water Relief Valve

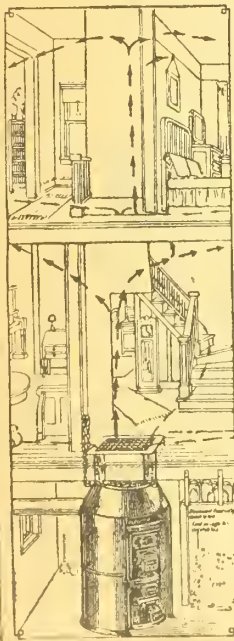
81E5548—Made of bronze. Hand wheel adjustment for regulating the pressure at which valve opens automatically. Used on steam pumps, pipe lines, steam cylinders, spray pumps, etc. Has a high relieving capacity. Set at factory to blow off at 100 lbs. Can be adjusted to other pressures. Pipe Size..... 1/2 1 1/4 1 1/2 2 1/2 3 1/2 4 1/2 5 1/2 6 1/2 7 1/2 8 1/2 9 1/2 10 1/2 11 1/2 12 1/2 13 1/2 14 1/2 15 1/2 16 1/2 17 1/2 18 1/2 19 1/2 20 1/2 21 1/2 22 1/2 23 1/2 24 1/2 25 1/2 26 1/2 27 1/2 28 1/2 29 1/2 30 1/2 31 1/2 32 1/2 33 1/2 34 1/2 35 1/2 36 1/2 37 1/2 38 1/2 39 1/2 40 1/2 41 1/2 42 1/2 43 1/2 44 1/2 45 1/2 46 1/2 47 1/2 48 1/2 49 1/2 50 1/2 51 1/2 52 1/2 53 1/2 54 1/2 55 1/2 56 1/2 57 1/2 58 1/2 59 1/2 60 1/2 61 1/2 62 1/2 63 1/2 64 1/2 65 1/2 66 1/2 67 1/2 68 1/2 69 1/2 70 1/2 71 1/2 72 1/2 73 1/2 74 1/2 75 1/2 76 1/2 77 1/2 78 1/2 79 1/2 80 1/2 81 1/2 82 1/2 83 1/2 84 1/2 85 1/2 86 1/2 87 1/2 88 1/2 89 1/2 90 1/2 91 1/2 92 1/2 93 1/2 94 1/2 95 1/2 96 1/2 97 1/2 98 1/2 99 1/2 100 1/2 101 1/2 102 1/2 103 1/2 104 1/2 105 1/2 106 1/2 107 1/2 108 1/2 109 1/2 110 1/2 111 1/2 112 1/2 113 1/2 114 1/2 115 1/2 116 1/2 117 1/2 118 1/2 119 1/2 120 1/2 121 1/2 122 1/2 123 1/2 124 1/2 125 1/2 126 1/2 127 1/2 128 1/2 129 1/2 130 1/2 131 1/2 132 1/2 133 1/2 134 1/2 135 1/2 136 1/2 137 1/2 138 1/2 139 1/2 140 1/2 141 1/2 142 1/2 143 1/2 144 1/2 145 1/2 146 1/2 147 1/2 148 1/2 149 1/2 150 1/2 151 1/2 152 1/2 153 1/2 154 1/2 155 1/2 156 1/2 157 1/2 158 1/2 159 1/2 160 1/2 161 1/2 162 1/2 163 1/2 164 1/2 165 1/2 166 1/2 167 1/2 168 1/2 169 1/2 170 1/2 171 1/2 172 1/2 173 1/2 174 1/2 175 1/2 176 1/2 177 1/2 178 1/2 179 1/2 180 1/2 181 1/2 182 1/2 183 1/2 184 1/2 185 1/2 186 1/2 187 1/2 188 1/2 189 1/2 190 1/2 191 1/2 192 1/2 193 1/2 194 1/2 195 1/2 196 1/2 197 1/2 198 1/2 199 1/2 200 1/2 201 1/2 202 1/2 203 1/2 204 1/2 205 1/2 206 1/2 207 1/2 208 1/2 209 1/2 210 1/2 211 1/2 212 1/2 213 1/2 214 1/2 215 1/2 216 1/2 217 1/2 218 1/2 219 1/2 220 1/2 221 1/2 222 1/2 223 1/2 224 1/2 225 1/2 226 1/2 227 1/2 228 1/2 229 1/2 230 1/2 231 1/2 232 1/2 233 1/2 234 1/2 235 1/2 236 1/2 237 1/2 238 1/2 239 1/2 240 1/2 241 1/2 242 1/2 243 1/2 244 1/2 245 1/2 246 1/2 247 1/2 248 1/2 249 1/2 250 1/2 251 1/2 252 1/2 253 1/2 254 1/2 255 1/2 256 1/2 257 1/2 258 1/2 259 1/2 260 1/2 261 1/2 262 1/2 263 1/2 264 1/2 265 1/2 266 1/2 267 1/2 268 1/2 269 1/2 270 1/2 271 1/2 272 1/2 273 1/2 274 1/2 275 1/2 276 1/2 277 1/2 278 1/2 279 1/2 280 1/2 281 1/2 282 1/2 283 1/2 284 1/2 285 1/2 286 1/2 287 1/2 288 1/2 289 1/2 290 1/2 291 1/2 292 1/2 293 1/2 294 1/2 295 1/2 296 1/2 297 1/2 298 1/2 299 1/2 300 1/2 301 1/2 302 1/2 303 1/2 304 1/2 305 1/2 306 1/2 307 1/2 308 1/2 309 1/2 310 1/2 311 1/2 312 1/2 313 1/2 314 1/2 315 1/2 316 1/2 317 1/2 318 1/2 319 1/2 320 1/2 321 1/2 322 1/2 323 1/2 324 1/2 325 1/2 326 1/2 327 1/2 328 1/2 329 1/2 330 1/2 331 1/2 332 1/2 333 1/2 334 1/2 335 1/2 336 1/2 337 1/2 338 1/2 339 1/2 340 1/2 341 1/2 342 1/2 343 1/2 344 1/2 345 1/2 346 1/2 347 1/2 348 1/2 349 1/2 350 1/2 351 1/2 352 1/2 353 1/2 354 1/2 355 1/2 356 1/2 357 1/2 358 1/2 359 1/2 360 1/2 361 1/2 362 1/2 363 1/2 364 1/2 365 1/2 366 1/2 367 1/2 368 1/2 369 1/2 370 1/2 371 1/2 372 1/2 373 1/2 374 1/2 375 1/2 376 1/2 377 1/2 378 1/2 379 1/2 380 1/2 381 1/2 382 1/2 383 1/2 384 1/2 385 1/2 386 1/2 387 1/2 388 1/2 389 1/2 390 1/2 391 1/2 392 1/2 393 1/2 394 1/2 395 1/2 396 1/2 397 1/2 398 1/2 399 1/2 400 1/2 401 1/2 402 1/2 403 1/2 404 1/2 405 1/2 406 1/2 407 1/2 408 1/2 409 1/2 410 1/2 411 1/2 412 1/2 413 1/2 414 1/2 415 1/2 416 1/2 417 1/2 418 1/2 419 1/2 420 1/2 421 1/2 422 1/2 423 1/2 424 1/2 425 1/2 426 1/2 427 1/2 428 1/2 429 1/2 430 1/2 431 1/2 432 1/2 433 1/2 434 1/2 435 1/2 436 1/2 437 1/2 438 1/2 439 1/2 440 1/2 441 1/2 442 1/2 443 1/2 444 1/2 445 1/2 446 1/2 447 1/2 448 1/2 449 1/2 450 1/2 451 1/2 452 1/2 453 1/2 454 1/2 455 1/2 456 1/2 457 1/2 458 1/2 459 1/2 460 1/2 461 1/2 462 1/2 463 1/2 464 1/2 465 1/2 466 1/2 467 1/2 468 1/2 469 1/2 470 1/2 471 1/2 472 1/2 473 1/2 474 1/2 475 1/2 476 1/2 477 1/2 478 1/2 479 1/2 480 1/2 481 1/2 482 1/2 483 1/2 484 1/2 485 1/2 486 1/2 487 1/2 488 1/2 489 1/2 490 1/2 491 1/2 492 1/2 493 1/2 494 1/2 495 1/2 496 1/2 497 1/2 498 1/2 499 1/2 500 1/2 501 1/2 502 1/2 503 1/2 504 1/2 505 1/2 506 1/2 507 1/2 508 1/2 509 1/2 510 1/2 511 1/2 512 1/2 513 1/2 514 1/2 515 1/2 516 1/2 517 1/2 518 1/2 519 1/2 520 1/2 521 1/2 522 1/2 523 1/2 524 1/2 525 1/2 526 1/2 527 1/2 528 1/2 529 1/2 530 1/2 531 1/2 532 1/2 533 1/2 534 1/2 535 1/2 536 1/2 537 1/2 538 1/2 539 1/2 540 1/2 541 1/2 542 1/2 543 1/2 544 1/2 545 1/2 546 1/2 547 1/2 548 1/2 549 1/2 550 1/2 551 1/2 552 1/2 553 1/2 554 1/2 555 1/2 556 1/2 557 1/2 558 1/2 559 1/2 560 1/2 561 1/2 562 1/2 563 1/2 564 1/2 565 1/2 566 1/2 567 1/2 568 1/2 569 1/2 570 1/2 571 1/2 572 1/2 573 1/2 574 1/2 575 1/2 576 1/2 577 1/2 578 1/2 579 1/2 580 1/2 581 1/2 582 1/2 583 1/2 584 1/2 585 1/2 586 1/2 587 1/2 588 1/2 589 1/2 590 1/2 591 1/2 592 1/2 593 1/2 594 1/2 595 1/2 596 1/2 597 1/2 598 1/2 599 1/2 600 1/2 601 1/2 602 1/2 603 1/2 604 1/2 605 1/2 606 1/2 607 1/2 608 1/2 609 1/2 610 1/2 611 1/2 612 1/2 613 1/2 614 1/2 615 1/2 616 1/2 617 1/2 618 1/2 619 1/2 620 1/2 621 1/2 622 1/2 623 1/2 624 1/2 625 1/2 626 1/2 627 1/2 628 1/2 629 1/2 630 1/2 631 1/2 632 1/2 633 1/2 634 1/2 635 1/2 636 1/2 637 1/2 638 1/2 639 1/2 640 1/2 641 1/2 642 1/2 643 1/2 644 1/2 645 1/2 646 1/2 647 1/2 648 1/2 649 1/2 650 1/2 651 1/2 652 1/2 653 1/2 654 1/2 655 1/2 656 1/2 657 1/2 658 1/2 659 1/2 660 1/2 661 1/2 662 1/2 663 1/2 664 1/2 665 1/2 666 1/2 667 1/2 668 1/2 669 1/2 670 1/2 671 1/2 672 1/2 673 1/2 674 1/2 675 1/2 676 1/2 677 1/2 678 1/2 679 1/2 680 1/2 681 1/2 682 1/2 683 1/2 684 1/2 685 1/2 686 1/2 687 1/2 688 1/2 689 1/2 690 1/2 691 1/2 692 1/2 693 1/2 694 1/2 695 1/2 696 1/2 697 1/2 698 1/2 699 1/2 700 1/2 701 1/2 702 1/2 703 1/2 704 1/2 705 1/2 706 1/2 707 1/2 708 1/2 709 1/2 710 1/2 711 1/2 712 1/2 713 1/2 714 1/2 715 1/2 716 1/2 717 1/2 718 1/2 719 1/2 720 1/2 721 1/2 722 1/2 723 1/2 724 1/2 725 1/2 726 1/2 727 1/2 728 1/2 729 1/2 730 1/2 731 1/2 732 1/2 733 1/2 734 1/2 735 1/2 736 1/2 737 1/2 738 1/2 739 1/2 740 1

Winter Comfort Throughout the Home



The outside of all furnaces look alike but what really counts is what is inside. It's the large amount of effective heating surface scientifically proportioned and arranged, quality materials that last for years and give you a greater number of years of heating comfort, that distinguish Ward's PERFECTION Super Heater from all others.

Above is Ward's PERFECTION Super Heater with casting or jacket cut away to show the construction and relative position of the castings. Notice the deep channels or corrugations that provide extra heating or radiating surface and allow the air to pass up over top of firepot, adding to the strength and radiating power.



Will Heat All Your Rooms Evenly

Ward's PERFECTION Super Heater comes nearer being a perfect pipeless furnace than any we ever saw or of which we ever heard.

Of course, any pipeless furnace is superior to stoves. You get a better and wider circulation of warm air. Instead of only the air around the stove being hot, leaving the rest of the room cold, the pipeless furnace keeps the whole house warm. It draws the cool air from the floors and returns a steady draft of warm air which is kept in constant circulation. Then too, there is less dirt from a pipeless furnace. The ashes and dust are kept in the basement where they belong.

In Ward's PERFECTION Super Heater you find not only these features but many others. In the first place the air in Ward's PERFECTION Super Heater travels 49% faster than in the ordinary type of pipeless furnace. This means a more rapid and healthier circulation of air through your rooms.

Then there is actually less dirt. There is very little soot in the furnace itself, because the flames in travelling up through the smoke arms and upper radiator consume practically all of the gases and soot. And when it comes to cleaning out what little soot does collect in the upper smoke channels of Ward's PERFECTION Super Heater, all you have to do is run a little brush (provided with each heater) around inside the top radiator and brush the soot down into the fire. No soot or dust is drawn into the basement. Instead of having to rake the soot out into the cellar, you simply burn it up inside the furnace. It's no trick at all, you don't even have to get your hands dirty.

The diagram at the left shows how the warm air, discharged through the register set in the floor of the living room, circulates all around the downstairs rooms and travels upstairs, warming the entire house.

Cash and time payment prices on Ward's Perfection Super Heater.

| Furnace Number | Size Number | Heating Capacity Cubic Feet | Size of Feed Door | Size of Smoke Pipe | Shipping Weight | Diameter Inches | Cash Price | Time Payment | Monthly Payment |
|----------------|-------------|-----------------------------|-------------------|--------------------|-----------------|-----------------|------------|--------------|-----------------|
| 281 E 7980 | 1 | 20,000 | 10x12 | 8 | 1000 | 44 | \$144.00 | \$163.75 | \$13.90 |
| 281 E 7981 | 2 | 25,000 | 12x13 | 8 | 1250 | 48 | 164.00 | 185.00 | 16.00 |
| 281 E 7982 | 3 | 30,000 | 12x13 | 8 | 1465 | 52 | 184.00 | 208.50 | 18.35 |

Shipped from factory in Southern Michigan.

281 E 8168 - Water heating coil to fit. For use with range boilers. Shipping weight, about 10 pounds. Price, extra, \$2.75.

Ward's Perfection Super Heater

Furnishes a Rapid Flow of Hot Air for Winter

to Keep Your House Warm in Coldest Weather, or

Provides a Slow, Gentle Heat for Spring or Fall

Easy to Install—Easy to Operate Satisfaction Guaranteed

10 MONTHS TO PAY—NO INTEREST

IT'S comfort you want when you buy a furnace — pleasing, healthful warmth and comfort. You will get it, and reduce the size of your fuel bill at the same time—when you put Ward's PERFECTION Super Heater in your home.

Ward's PERFECTION Super Heater is more than a furnace. It is a complete heating plant—complete in itself and guaranteed to heat your home to 70° even in the coldest weather.

In Mid-Winter, in the bitterest, coldest weather of the year—when you want heat and lots of it—Ward's PERFECTION Super Heater can be fired to the limit. It is big enough and strong enough to stand it, and its special construction—with extra heating surface and more rapid circulation of warm air—will send up a rush of heat to keep your home always warm and comfortable.

Yet it can be throttled down in mild weather to a slow gentle heat, providing just enough heat to keep the house warm and comfortable, and you hardly know that the furnace is going. It is always easy to control Ward's PERFECTION Super Heater.

And most important, even with the hardest firing, you get the greatest possible amount of heat from the fuel used. The fire travels all the way up through the four smoke arms and even in and around the top radiator (see illustration at top of opposite page) consuming gases and smoke so that all heat possibly obtainable is extracted before the smoke reaches the flue.

You've probably noticed the heavy black smoke belching from your neighbor's chimney. That means that the gases from the coal have not been properly ignited—it is only good heat going to waste. In Ward's PERFECTION Super Heater the smoke, except perhaps for the first few minutes after firing, is always light gray—you burn practically all the combustible material usually wasted in the smoke—you get MORE heat from LESS fuel.

Constant Circulation of Warm, Healthful Air

The extra large heating or radiating surface of Ward's PERFECTION Super Heater is more than double the amount of that in the ordinary type of pipeless furnace (see illustration at bottom of opposite page). It gives off a tremendous volume of heat and the extra free air space (49% more than in the ordinary type of pipeless furnace) provides a greater volume of air. The result is constant, rapid circulation of warm air, travelling 49% faster in Ward's PERFECTION Super Heater than in the ordinary pipeless furnace.

This insures your rooms being kept at a pleasant, even temperature all the time. The extra volume of air circulating around and along the extra large radiating surface, absorbs a greater percentage of heat than ordinary air. The air is strong and positive, and as the heat is increased, the flow becomes stronger in direct proportion to the heat applied. For this reason, the air never becomes intensely hot and "parched" but a constant, more rapid flow of mild, balmy, summer-like warm air is always maintained.

The large water pan conveniently placed provides the proper amount of moisture in the air. With the PERFECTION Super Heater you do not have that hot dry feeling so common to many furnaces, but rather the mild balmy warmth of Spring.

Ward's Guarantee with Every PERFECTION Super Heater

You can see why we call it the perfect heating plant—because of its extra heating powers and its economy in use. We are firmly convinced it is one of the best heaters on the market today and gladly back it with our guarantee.

In design, material and construction, Ward's PERFECTION Super Heater is

first class and highest quality in every way. We guarantee it to give complete and thorough satisfaction, to operate easily and economically, heat readily and every shape, form and manner give you the service you have a right to expect. **Your Money Back If Not Entirely Satisfied.**

Easy to Install—Directions Furnished

A man and a boy can install one of Ward's PERFECTION Super Heaters in less than a day's time. You can't go wrong — one part fits into another with exact precision. Everything fits just right.

About ordering—you will notice we list three Ward's PERFECTION Super Heaters in 3 sizes—heating 20,000, 25,000 or 30,000 cubic feet. To determine the right size for your home multiply the width of the house by the length and then multiply the result by the height of the ceiling (or two ceilings if a 2-story house). That will give you the number of

cubic feet to be heated. It is always wise to remember that the larger the furnace you buy the more heat you can get up in cold weather and that a furnace larger than absolutely necessary lasts longer because it never needs to be fired to the limit.

A size larger should be installed when wood is used as fuel. In determining the size of your furnace make allowance for exposure to high winds, large outside doors and windows. Allowance should also be made for temperatures much below zero.

When ordering on time payments, use Special Order Blank on page 826.

More Heat from Less Fuel

Special Features of Ward's Perfection Super Heater

Double the Amount of Heating Surface
In the Ordinary Type of Furnace

49% Larger Volume of Warm Air
Due to Greatly Increased Free Air Space

49% More Rapid Circulation of Air
Insuring a Steady, Healthful Flow of Even Heat

Larger Grate Surface—Special Fire Pot
Gets the Maximum Amount of Heat from Fuel Used

WHEN you put a new heating system in your home—you want one that will last for years and heat your rooms satisfactorily in the coldest kind of weather. Ward's PERFECTION Super Heater is far superior to the ordinary type of pipeless furnace. Even though it may cost slightly more, it is well worth it. And remember, you have our absolute guarantee to protect you in every way.

Below we mention a few of the special features in the construction of Ward's PERFECTION Pipeless Furnace.

Radiating Surface—Ward's PERFECTION Super Heater has more than twice the amount of radiating surface of the ordinary type of furnace. After the heat is created, it rises to the top of the radiator and is deflected down along the side. It again rises and after heating all surfaces in this direct or first radiator, it passes up into the indirect radiator. Here again, the heat units are absorbed as the smoke and fire travels horizontally along the chamber. After this, it passes into the third indirect radiator, where the same process occurs. This means that all the heat created by the fire must pass through 3 distinct heat traps before entering the flue, instead of just one, as in the ordinary furnace. The flame is admitted to the radiator through 4 and 5 different passages, igniting and burning all gas or smoke. It is practically a smokeless furnace.

Grates—Made in 3 sections, each one movable separately or together. Each part of the grate surface may easily be cleaned and kept clean. No unmovable parts for ashes to collect on. (See grate comparison below.)

Ash Pit—Large and roomy. Will accommodate a large amount of ashes allowing plenty of room to attend to fire.

Dust Flue—Keeps all the dirt and dust out of the basement when shaking fire or removing ashes.

Feed Door—Fitted with large leak-proof feed door which will accommodate any kind of fuel. Has air space between door and plate eliminating all danger of gas explosion.

Hot Blast—Damper in feed door provides a hot blast for burning soft coal or lignite. Prevents smoking of chimney when using this fuel.

Firepot—Made exceptionally strong. Highly improved style. No chance for ashes to collect on the sides and reduce the heating efficiency.

Joints—All joints are deep cut and filled with a special asbestos cement. Will hold for years without leaking.

Casing—Made of high grade galvanized steel, lined with asbestos and polished bright corrugated tin. Keeps the heat inside and makes the basement a cool place for fruit and vegetable storage.

Water Pan—All furnaces fitted with water pan of sufficient capacity to insure proper humidity in all the rooms. This is a very important feature, as it promotes the health and longevity of every member of the family.

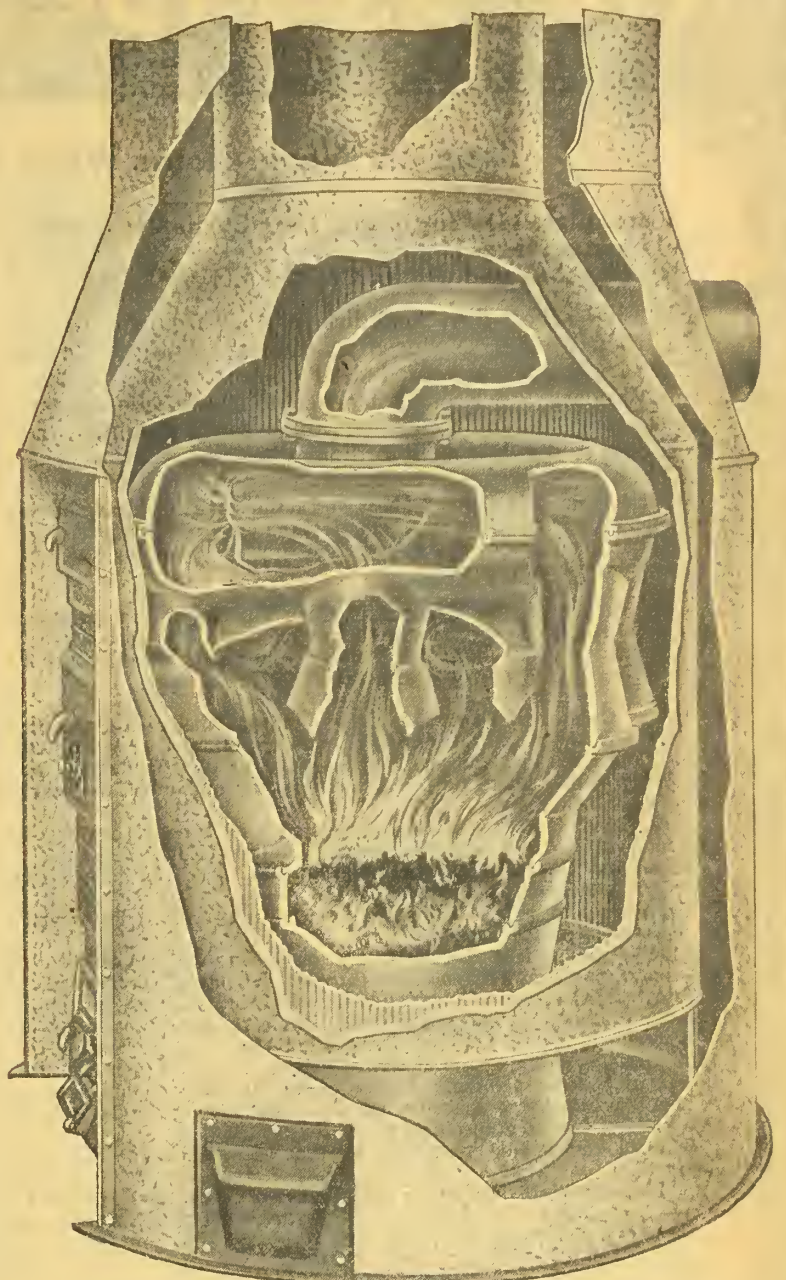
Drafts and Checks—Fitted with most improved drafts and checks which can be controlled from the basement or living rooms.

Easy to Clean—The construction of this modern furnace makes it easy to keep clean. The flexible handled cleanout brush is of invaluable assistance. A woman can clean this furnace easily and keep clean doing it. No need to drag the soot out into the cellar. You simply brush down into the fire what little soot collects in the top radiator.

Firing Tools—With every furnace are included the necessary firing tools, consisting of a heavy, bent-end poker, a long handled, strong coal and ash shovel and a long flexible handled, cleanout brush. We also furnish complete instructions for operating.

Water Heater—For \$2.75 additional we can equip your furnace to supply plenty of hot water for kitchen, bath and lavatory.

Floor Register—Very strong and heavy. Insures a steady supply of extremely warm air which passes up through the center of the register. Cold air is drawn down into the furnace through the outer section.



Above is Ward's PERFECTION Super Heater with casing and castings cut away. Instead of going directly from the firebed to the smoke outlet, all the fire, smoke and gas in Ward's PERFECTION Super Heater must travel along this extra radiating surface, giving up nearly all their heat before they are permitted to escape up the chimney. Notice that even the smoke pipe itself passes through the top of the air space, forming an extra radiating surface to provide more heat. Ward's PERFECTION Super Heater will burn hard or soft coal, wood, coke or anything else combustible.

Study these Important Comparisons

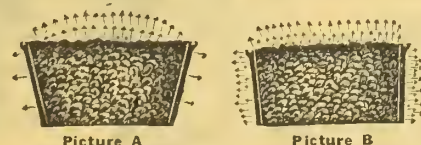


Picture 1 Picture 2
The Rate the Fire Burns

Of first importance on any furnace, is the grate. It is this that controls the amount of draft to the fire, and which therefore controls the rate at which the fire burns. To be efficient, the grate should at all times be perfectly clean. As soon as ashes or clinkers are allowed to accumulate on any part of the grate's surface for any period, the passage of air is stopped, causing a dead spot to appear on the surface of the fire. This most commonly occurs along the outer edge of the firepot and results in loss of heat and naturally a great waste of fuel.

Owing to the construction of the average grate, many obstructions, which are not movable, appear, offering many inviting places for ashes to collect. It is impossible to remove them without the aid of a poker and then, very often, these spots are found to be inaccessible while the fire is burning.

The above illustrations show the grates used in the average furnace (Picture Number 1) now in use, while Picture Number 2 shows the grate with which Ward's PERFECTION Super Heaters are equipped. Being made of three sections, any part of the grate's surface may easily be cleaned, or if desired, the entire surface may be moved at once. These sections slip left and right, and as they extend to the outer surface of the firepot, all stationary parts are eliminated and there is no possibility of ashes collecting on any part of the grates. Then too, the surface of the grate is almost equal to that of the top of the firepot (see following paragraph).



Picture A Picture B
The Amount of Fire

The next thing of importance on any furnace, is the firepot. Not only is the shape of this part of tremendous importance, but as it is the part that is subjected to the greatest strain by reason of the red hot fuel it continually holds, it is usually the part that is first to wear out. Ward's PERFECTION Super Heaters are prepared for this. The firepots used in these furnaces are over-size—extra strong, heavy, and fire-resisting.

Compare the two pictures shown above. Picture Number A shows the average firepot used in 90% of all furnaces today, while Picture Number B illustrates the style firepot furnished with Ward's PERFECTION Super Heaters. The former has a capacity only of 125 pounds of fuel while the latter has a capacity of 150 pounds. This is due to the fact that the grate surface of Picture Number 2 is 380 square inches against 254 square inches in Picture Number 1.

You will notice on these illustrations the amount of dead fire space along the sides of Picture Number 1. This is caused by insufficient draft, due to the small grate and also to the ashes which have collected on the unmovable outer section of the grate. In this way much heat is lost as the only portion of the fire which can generate any heat is in the center.

ashes cannot collect on the sides of the PERFECTION firepot.

To obtain the best results and to have a warm house, the firepot must radiate heat from its sides as well as from the fire surface. Without sufficient draft this is impossible and to obtain this necessary air space, a grate surface almost equal to that of the top of the firepot is necessary.

Compare WARD'S PERFECTION SUPER HEATER with the Ordinary Furnace

The illustration below compares Ward's PERFECTION Super Heater with the average pipeless furnace. The dotted lines are the outline of the ordinary furnace. The black is the heavy metal portion of the PERFECTION and the solid lines are its outer casings. See how much larger is Ward's PERFECTION Super Heater, how much more heating surface. See how much larger is Ward's PERFECTION Super Heater, how much more metal with which the air comes in contact, meaning that much more heat, and better circulation of the air and notice how the air travels all around and along all the corrugations in Ward's PERFECTION Super Heater instead of passing upstairs before being thoroughly and evenly warmed.

The reason why so many furnaces made today do not measure up to Ward's PERFECTION Super Heater and are so extravagant of fuel, is not only due to their grates and the firepots, but to their lack of the PERFECTION'S facilities for capturing and distributing the heat after it is generated. In most of the furnaces in use today this important factor has been ignored and a great amount of fuel is being wasted annually. In such inferior furnaces, the course which the smoke and fire follows is so very short that as much or more heat escapes out the chimney as enters the rooms through the central register.

In Ward's PERFECTION Super Heater the heat rises from the fire, is deflected down along the sides of the firepot, then rises again, heating the entire radiating surface which is more than twice that in the ordinary type of furnace. After leaving this radiator, the heat passes into the indirect radiator above where more of it is absorbed and turned to use. From here, whatever heat still remains in the gases and smoke, passes into the third radiator, where the same process occurs.

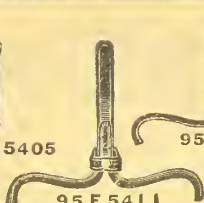
Thus, all the warm air must pass through three distinct heat traps before it could reach the flue. That reduces all chances of wasted heat to a minimum. The scientific construction of Ward's PERFECTION Super Heater provides 50% more free air space than the ordinary furnace. Free air space is that between the heavy cast radiators and the outer casing. You obtain half again more warm air from the same amount of fire. Don't forget these important features in comparing Ward's PERFECTION Super Heater with the ordinary type of furnace.



Dependable Whips and Bridle Parts



95 E 5405



95 E 5406



95 E 5403



95 E 5422

95 E 5489

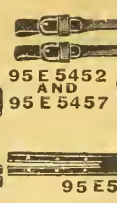
95 E 5428



95 E 5417

95 E 5441

95 E 5446



95 E 5452 AND 95 E 5457

95 E 5463

Blinds and Cheeks

For buggy bridges, 3/4-inch box looped cheeks, first quality square patent leather blinds, with round winker brace sewed in. Imitation rubber buckles. Shipping weight, per pair, 18 ounces.

95 E 5405—Price, per pair, for 1 bridle.....\$2.00

Winker Stays

For buggy blind bridges, the round parts to be sewed into corners of blinds, flat center piece to crown of bridle. Shipping weight, each, 3 ounces.

95 E 5406—Price, each.....35c

Team Winker Stays

Heavy for team or work harness. Blind bridges. Heavy round parts to be sewed into blinds. 3/4 flat billet to buckle in crown. Brass spot in center. Shipping weight, 5 ounces.

95 E 5411—Price, each.....38c

Blinds and Cheeks

For team bridge, 3/4 inch short cheek with bit strap and nose band and round winker brace and sewed in, a good grade Japan (black) buckles. Shipping weight, per pair about 32 oz.

95 E 5403—Per pair, for \$1.95 one bridle.....

Buggy Bridge Cheeks

Round bridge cheeks for buggy bridges, black leather 3/4-in., buckles either nickel or imitation rubber. Good quality. Ship. wt., per pair, 6 oz.

95 E 5422—3/4-in. Nickel. Price, per pair for 1 bridle.....\$1.05

95 E 5423—3/4-in. Imitation rubber. Price, per pair for 1 bridle.....\$1.05

Team Throat Latches

95 E 5428—Width, 3/4 in.; length 18 in., black leather with black bar buckle at each end. Ship. wt., 4 oz. Price, each.....22c

Bridle Fronts for Team Bridges

95 E 5489—Bridle fronts for team bridges, plain black leather leather bridle front, two-ply of leather stitched on each edge, raised in center. Width, 3/4 in. Total length, 16 in., strong and durable article. Weight, each, 2 oz. Each.....25c

Team Bridle Cheeks

Wide leaf chafe buckle on one end, buckle and billet on the other end. Japan (Black) trimmed. Shipping weight, per pair, about 12 ounces.

95 E 5417—3/4 in. buckles. Price, per pair (2).....80c

Single Over-Check Reins

For buggy bridges with nose band, 3/4 in. backs, 3 buckles, imitation rubber. Shipping weight, each, 9 oz.

95 E 5441—Imitation rubber trimmed. Price, each.....\$1.20

Buggy Bridge Crowns

Bridle crowns for buggy bridges, layer on center and overcheck loops, width, 1 1/2 in. in center, length, 24 in. Shipping weight, 5 ounces.

95 E 5446—Price, each.....55c

Check Reins

Round side check reins 3/4-in. billets, for buggy bridges. Imitation rubber buckle. Shipping weight, each, 8 oz.

95 E 5452—Price, each.....\$1.75

Round Side Check Reins for Farm or Work Bridges

3/4-in. billets. The round parts are 18 in. long on each end of the reins, connected by a flat strap 1/2 in. wide. Shipping weight, each, 14 ounces.

95 E 5457—XC metal (white) trimmed. Price, each, for one bridle.....\$1.52

95 E 5458—Jap (black) trimmed. Price, each, for one bridle.....1.52

Team Bridle Crowns

Bridle crowns for team bridges, 1 1/2 in. bodies, 3/4-in. billets on each end. Total length, 24 in. Shipping weight, 6 ounces.

95 E 5463—Price, each.....42c

Riding Quirts



Our new shot loaded quirt, double covered, 12-plait French calf, white and russet checked handle and striped 3 leather buttons and loop handle. Length of body 20 inches. Total length of quirt, 36 inches. Weight, each about 12 ounces.

95 E 3925—Each.....\$1.95



95 E 3915—Each.....\$1.05

A Serviceable Whip



95 E 3905—Each.....65c

Leather Pipes

Length, 24 inches to cover trace chains for plow harness. Common or standard quality; no binding on ends. Weight, per set, about 2 lbs.

95 E 6109—Per set of four for two horses.....\$2.05

Extra heavy chain piping to cover trace chains in plow harness. Heaviest and best quality; bound on both ends and made in three lengths.

Per Set of 4 for Two Horses

| Art. No. | Length | Weight | Price set of 4 |
|-----------|--------|------------|----------------|
| 95 E 6110 | 30 in. | 3 lbs. | \$3.38 |
| 95 E 6111 | 36 in. | 3 1/2 lbs. | 3.98 |
| 95 E 6112 | 42 in. | 4 1/2 lbs. | 4.95 |

Flat Traces

Double and stitched, to buckle into hame tugs; cut from good stock. Flat, round edge. Average shipping weight, about 4 lbs.

| Art. No. | Width | Length | Per Pair |
|-----------|-----------|-------------|----------|
| 95 E 5808 | 1 1/2 in. | 6 ft. | \$3.75 |
| 95 E 5809 | 1 1/2 in. | 6 ft. | 4.00 |
| 95 E 5810 | 1 1/2 in. | 6 ft. 6 in. | 4.10 |
| 95 E 5811 | 1 1/2 in. | 6 ft. 6 in. | 4.45 |

Drovers' Whips—California Style



Jacksonville Drovers Whips, solid leather center with patent unbreakable steel revolving handle, 8-plait latigo tanned leather, heavy white French calf, 4-plait point. Lacing at the handle.

Article No. 95 E 8785 95 E 8786

Length.....10 ft. 28 oz.

Weight.....24 oz. \$2.30 \$2.60

Price, each.....

Same Style as above only with shot loaded center.

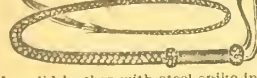
Article No. 95 E 8787 95 E 8788

Length.....10 ft. 32 oz.

Weight.....30 oz. \$2.70 \$2.95

Price, each.....

All-Leather Team Whips



Body solid leather with steel spike in center of handle, leather stitched handle, plaited with patent drum, rawhide entire length, buck snap, leather loop.

| Article No. | Length | Weight | Price Ea. |
|-------------|--------|--------|-----------|
| 95 E 8752 | 5 ft. | 16 oz. | \$.95 |
| 95 E 8753 | 6 ft. | 17 oz. | 1.20 |
| 95 E 8754 | 7 ft. | 18 oz. | 1.45 |

Australian Style Drovers or Cattle Whips



Fine 12-plait latigo leather, buckskin point, shot loaded center, with an unbreakable patent steel revolving leather covered handle, white huck point and snap, fine hand made long button and heavy large head button.

Article number 95 E 8814 95 E 8815

Length.....10 ft. 12 ft.

Weight.....30 oz. 32 oz.

Price, each.....\$3.60 \$3.95

Article No. 95 E 8816 95 E 8817

Length.....10 ft. 12 ft.

Weight.....29 oz. 35 oz.

Price, each.....\$4.35 \$4.80

Stallion Whips



95 E 8759—With solid leather center and covered with 6-plait oil tanned white horsehide with oil finish, Boston snap, 2 buttons and frill, length 4 1/2 ft. Ship. wt., 12 oz.

Price, each.....80c

Bridle Fronts for Buggy Bridges

95 E 5504

Bridle Fronts for Team Bridges

95 E 5504—Buggy bridge fronts for work harness, heavy, strong and very ornamental. These fronts, cut 1 1/2 in., are 17 in. total length, leather loop on each end and 16 large size peanut shaped brass spots. Weight, each, about 3 1/2 ounces.

Price, each.....58c

Buggy Side Straps

Our best grade side straps for single buggy harness. Length, 4 ft. Imitation rubber buckles. Weight, 9 to 13 oz.

95 E 6022—Size, 3/4 in. Price, each.....\$1.25

95 E 6024—Size, 1 in. Price, each.....1.40



95 E 5473

95 E 5468

95 E 5473—Brass fronts for team bridges, solid harness leather backs, heavy, solid brass plates securely riveted on the front side. These fronts will give good service and are very ornamental on harness. Total length, 17 in. Weight, 2 1/2 and 3 ounces.

95 E 5473—Width, 3/4 in. Price, each.....32c

95 E 5474—Width, 1 in. Price, each.....37c

95 E 5468—Face drops. Made of patent leather with fancy leather binding all around and with 2 1/2-in. brass circle with star center securely attached. Top end is good harness leather. Total length, 15 in. Wt., about 2 oz.

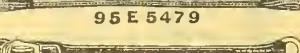
Each.....88c



Horse Breakers

95 E 6285—Our Special Horse Breaker. Simple, practical, safe and effective. Can be used for a breeding hopple, or for breaking purposes, and is especially valuable when used to break vicious horses of the dangerous habit of kicking. The breaker should be supported from the horse by means of a surcingle. Our price does not include a surcingle. Weight, each, 4 lbs.

Each.....\$3.75



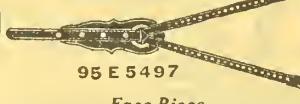
95 E 5479

95 E 5479—All harness leather, high oval raise. Width, 3/4 in., 2 rows imitation stitching. Plain but substantial. Total length, 15 in. Weight, 1 oz. Each.....20c

Team Rounds

95 E 5435—Team rounds only. Without center checks. Length, 18 in. with buckle and billet on one end and ring rounded into other end. Shipping weight, each, 4 oz.

Price, each.....43c



95 E 5497

95 E 5497—3/4-inch billet spotted and 3/4-inch forks thickly spotted and with loops at end, to loop around bridle cheeks, billet and forks sewed into ring and safe under ring. Brass spotted. Price, each.....70c



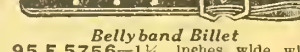
95 E 6246

95 E 6246—Front hobbles, two leather anklets connected by 8-in. swivel chain. To be attached to the two forelegs of a horse to prevent running or straying away when loose. Weight, per pair, 1 lb. Price, each.....\$1.00

Genuine Never-Fall Interfering Device

95 E 6261—Will spread the colt's gait and make him a wild traveler. Every horseman will understand the merits of this device when seen. Weight, each, 3 ounces.

Price, each.....55c



95 E 5756

95 E 5756—1 1/4 inches wide, with Conway loop, making it very easy to attach to trace. Shipping weight, 3 ounces.

Price, each.....38c

Buggy Whips



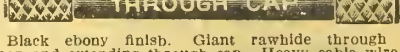
Extra heavy rawhide center. Woven half thread under cover. Rubber drill lined. Has 2 1/2-in. chased black ferrule and 2 1/2 in. chased bead ferrule and rubber cushion head to match. Silk English snap. Shipping weights, about 2 1/2 pounds.

95 E 8725—6 ft. Black. Each.....\$1.35

Two for.....2.50

95 E 8728—6 1/2 ft. Black. Each.....1.50

Two for.....2.80



Black ebony finisb. Giant rawhide through from snap and extending through cap. Heavy cable wire cord cover, reinforced loop. Buckskin reinforced snap, two 6-stitch hand worked buttons. Rubber cap and Boston snap. Rubber drill lined. Length, 6 ft. Shipping weight, each 2 lbs.

95 E 8715—Price, each.....\$1.00

Two for.....1.80

Leather Covered Wagon Whips



95 E 8745—Leather Covered Team Whips, half rawhide center covered with russet leather; white horsehide tops. Length, 7 ft. Ship. wt., 1 1/2 lbs.

Each.....\$1.20

95 E 8746—All Leather Express Whips, solid stocked rawhide, body covered with oiled russet leather, buckskin stitched; length 8 ft. Shipping weight, 2 lbs.

Each.....\$1.95

95 E 8747—Extra quality Wagon Whips. Heavy rawhide center with stocked Java body, which is again covered on the outside with 6-plait drum rawhide. Length, 7 1/2 ft. Shipping weight, each, 2 lbs.

Each.....\$2.10

Horse Hide Whip Lashes

A good grade whip lash. 4-plait, white horse hide leather, with thread crackler. Weight from 10 to 12 oz.

95 E 8769—10-foot length. Price, each.....70c

95 E 8770—12-foot length. Price, each.....82c

Whip Lashes

Rawhide whip lashes. Weight from 3 to 6 ounces, each, 4-plait. Made from fine oiled finished rawhide, soft and pliable but very tough.

95 E 8771—Length, 4 ft. Price, each.....25c

95 E 8772—Length, 5 ft. Price, each.....30c

95 E 8773—Length, 6 ft. Price, each.....35c

Whip Crackers

95 E 8766—Whip crackers, all silk best quality, length 7 in. Per dozen.....75c

Weight, per dozen, about 1 oz.

Boys' California Style Drovers Whips



Boys' Drovers Whips, solid leather center, 6-plait rawhide, leather button, wood handle. California style.

Article No. 95 E 8797 95 E 8799 95 E 8800

Length.....6 ft. 8 ft. 10 ft.

Weight.....12 oz. 17 oz. 20 oz.

Price, each.....85c \$1.15 \$1.40

Shot Loaded Mule Whips



Genuine Mule Skinners. Real western style mule whip, made of double cover latigo leather, for one-half length, other half being 8-plait buckskin. Body is buck stitched by hand, shot loaded, finished with bead button.

Article No. 95 E 8828 95 E 8829

Length.....6 1/2 ft. 7 1/2 ft.

Weight.....21 oz. 29 oz.

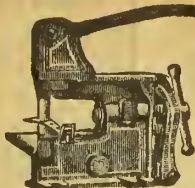
Price, each.....\$2.55 \$2.90

Repair Your Old Harness at a Low Cost

Zig-Zag Harness Menders

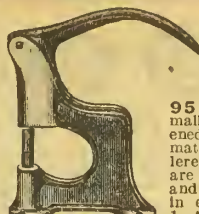


95 E 8119—Belt Menders and shoe sole savers. Package contains three dozen menders in three sizes. For putting on buckles, mending lines and other strapwork. Weight per package, 6 oz.
Price, per package... \$.30
Per dozen packages... 3.20



No. 1 Riveting Machine

A handy tool for harnessmakers or farmers for repairing all ordinary strap work.
95 E 8135—Has vice for holding straps, rods, bolts etc. Of best malleable iron and steel. No adjustment. All rivets may be used. Weight 6 pounds, 8 ounces.
Price, each... \$3.15



Rex Riveting Machine

95 E 8140—Made of best malleable iron with case-hardened steel plunger and automatic adjustment for different lengths of rivets. They are neatly finished, japanned and are first class machines in every way; will set No. 1 tubular rivets or split rivets as easily and as well as any of the higher priced machines. Height, 6 1/2 in. Weight, each, 2 lbs., 12 oz.
Price, each... \$1.15



Good Luck Riveting Machine

95 E 8130—Made of gray iron about 6 1/4 x 7 inches in size. Sets either tubular or split rivets. Weight, about 2 lbs. 3 oz.
Price each... 85c

Harness-makers' Horse

195 E 8273—Harness-makers' Stitching Horse. Any man can do his own repairing and save his time as well as his money. Seat, lever and rounds made of Missouri Hickory with jaws of hard maple. Weight, 18 lbs. Price, without jaw strap, each... \$6.00
95 E 8274—Jaw Strap (weight, about 8 oz.) add 90c



Myer's Sewing Awl

Comes packed complete with one straight and one curved needle, one reel waxed thread, small wrench and screwdriver combined, and complete set of directions. Weight, about 3 ounces.
95 E 8113—Price, each... 65c
95 E 8114—Straight needles... 9c
95 E 8115—Curved needles... 9c
95 E 8116—Beeswax for waxing thread per cake... 12c
95 E 8112—One-quarter lb. tubes of thread for filling spoils. Price, per tube... \$1.20
95 E 8117—Reels filled with thread. Each... 18c

95 E 8229

Edge Tools

Edge Tools used for removing the sharp corners from new strap work; 5 in. long. Weight, each, 1/4 oz. Each... 30c

Trimming Knives

95 E 8234—High grade Square Point Trimming Knives, fine steel blades, turned wood handles. Weight, 1 oz. Each... 25c

Creasers

Single Edge Creasers for harness makers. Osborne's tools and first quality. Weight, 1 1/2 ounces. 95 E 8206—Size 3. Price... 75c



Harness Thread

Weight, per ball, 2 ounces.
95 E 8284—Harness or Shoe Thread. No. 10 half bleached linen thread. American Standard natural linen color. Per ball... \$.40
2 oz. balls. Per lb. (8 balls)... 3.10

Finishing Wheels

Stationary Finishing and Overstitch Wheels, also used for Pricking. Osborne's make; round shank, black handles; Nos. 5 and 6. The number means the number of stitches to the inch. Weight, 1 1/2 oz.
95 E 8190—Size 5. Price... \$1.40
95 E 8191—Size 6. Price... 1.40

Revolving Punches

95 E 8168—Revolving Spring Punches, with six tubes that drive in. All steel standard quality. Assorted sized tubes in each punch. Weight, 12 oz. Each... \$1.20
No extra tubes or repairs for this punch.



Revolving spring tube punches, strictly all steel, and first quality
95 E 8174—Six tubes to screw in. Nos. 1, 2, 3, 4, 5 and 6 in each punch. Weight, 14 ounces. Price, each... \$1.58
95 E 8175—Extra screw tubes for No. 95E8174. Spring Punches. Each... 18c
Tubes larger than No. 6 will not fit in the frames of four-tube or six-tube punches.

Channelers for Harness Making

95 E 8262—Channelers for harness-makers' use. For cutting channels for stitches in traces, and other strap work. Weight, 3 ounces. Each... \$1.95



Tool Steel Compass

95 E 8217—Tool Steel Compasses. Osborne's best make, for channeling leather so that the stitches will be below the surface. Can be adjusted by means of a set screw. Length, 4 1/4 in. Weight each, 1 ounce. Each... \$1.20



Round Saddlers' Knives

95 E 8252—Round Knives. Good quality steel, 5 in. blades, rosewood handles. Weight, 2 ounces. Each... \$1.45



Assorted Tubular Rivets

95 E 8163—Tubular Rivets, No. 1. Japanned Tubular Rivets for repairing or making all kinds of strap work. Put up in small boxes containing 100 rivets of assorted sizes from 3/8 in. to 1/2 in. Weight, 4 oz. Per box of 100... 23c



Osborne's Gauge Knives

95 E 8257—Gauge Knife, hollow iron handle. Osborne's well known make. Strictly first class goods; very strong and substantial. Will cut from 1/4 to 4 inches. Same as used by harness makers. Weight, 16 ounces. Price, each... \$1.95



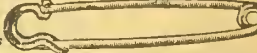
Leather Splitters

Iron frames new pattern. Can be set to any gauge desired and can be fastened to any work bench; will split up to 6 inches in width.
95 E 8223—Size, 6 in. Wt., 6 lbs. Price, each... \$7.75



Horse

Blanket Pins
95 E 7400—All steel blanket pins 3 1/2 inches long. Weight, per dozen, about 10 ounces. Price, per dozen... 20c
Price, per dozen... 37c



Wax

95 E 8279—Black Wax, used by harness-makers and shoe-makers for making wax ends. Weight, per ball, 1 ounce; per doz. balls, 12 oz. Price, per ball... 2c
95 E 8280—Per doz. balls... 20c



Black Harness Leather

The leather we offer you is bark tanned leather, made in the old-fashioned way. Due to the uncertainty in the leather market we reserve the right to change the price of harness leather without notice.
95 E 8109—Diamond W "B" Grade Harness Leather. Whole sides only. Wt., from 15 to 21 lbs. Price, per pound... 54c
95 E 8110—Diamond W "B" Grade Trace Leather. 22 to 24 lbs., whole sides. Price, per pound... 55c
95 E 8111—Harness Leather Belles in pieces. Average weight, from 3 1/2 to 5 lbs. Used for repair purposes. Price, per pound... 35c
95 E 8118—Diamond W Backs only. No. 1 Grade Harness Leather. Wt., from 13 to 16 lbs. Price, per pound... 69c
95 E 8121—Diamond W Backs only. Trace leather. Weight, from 16 to 19 lbs. Price, per pound... 70c

Improved Circle Brand Harness Oil

Keeps leather soft and pliable. Contains only highest grade stock, properly compounded. The addition of Neatsfoot and Kid Oil keeps leather soft and pliable and entirely waterproof. Used to good advantage on any similar leather surfaces exposed to weather and hard usage.
95 E 8331—1/2-gal. cans. Wt., 4 1/2 lbs. Price, per can... 65c
95 E 8332—One-gallon cans. Wt., 8 1/2 lbs. Price, per can... 95c
95 E 8333—Five-gallon cans. Wt., 43 lbs. Not available. Price, per can... \$2.90



Harness Oil Blacking

95 E 8344—Reliable Harness Oil Blacking. A combination of Neatsfoot and other oils. A superior product for softening and preserving leather. Is jet black and the black will not smut or settle. In 1-quart cans. Wt., per can, about 2 1/2 lbs. Each... 50c



Reliable Oil Neatsfoot Compound

Keeps your leather goods in the best of condition. Prevents the leather from becoming hard and stiff.
95 E 8300—Specially prepared in our Laboratory for use on harness saddles, fly nets, boots shoes and all articles of leather. This oil is of high quality and very superior merit. In quart cans. Weight, per can, 2 1/2 lbs. Price... 60c



Gall Remedy

A handy article to always have on hand. Costs but a small sum and may save you many dollars.
95 E 8320—Thornward Gall Remedy. Manufactured by Montgomery Ward & Co. This gall remedy is prepared from our own formula, is composed of pure materials having medicinal properties of a high order. Put up in 2-oz. boxes. Price, per box... 21c



Reliable Metal Polish

95 E 8349—For cleaning and polishing brass, copper, nickel, zinc, tin, silver and gold, such as brass signs railings, harness trimmings, show cases and all household articles. Does not leave deposits in corners and crevices, nor will it stain or deface woodwork or other material with which it comes in contact. Will not scratch. Pleasant odor and does not contain acids or anything injurious to metal or hands. Put up in 1-pint cans. Weight, 17 oz. Each... 40c



Reliable Harness Dressing

95 E 8305—Made especially for refinishing Harness. Fly Nets, Traveling Bags, etc. Imparts a beautiful, soft jet black luster which will not smut or peel off and does not lose its color. Put up in 1-quart cans. Weight, per can, about 2 lbs., 10 oz. Each... 90c



Reliable Harness Soap

A strictly first class article that oils, softens, preserves and beautifies the harness. It is jet black, and the only Soap Dressing that will not shrink or mold.
95 E 8315—1-lb. box. Ship. wt., 1 1/4 lbs. Price, each... 35c
95 E 8316—2 1/2-lb. box. Ship. wt., 3 lbs. Price, each... 65c
95 E 8317—5-lb. box. Shipping weight, 6 lbs. Price, each... \$1.00



Hoof Oil

Standard Hoof Oil. A reliable preparation for softening and cleansing the hoof, thus preserving a healthy condition of the feet. It is especially effective in healing barbs, wire scratches, cuts, wounds, galls, and for thrush or foot rot.
95 E 8325—1/2-gallon can. Weight, 4 1/2 lbs. Price, each... 75c
95 E 8326—1-gallon cans. Weight, 8 1/2 lbs. Price, each... \$1.05



Dipping Tank

Galvanized steel, heavy wire basket.
95 E 7385—30 gallons. Height, 28 inches. Diameter basket, 19 inches. Height, 16 inches. Ship. wt., 35 lbs. Price, each... \$6.50
95 E 7386—60 gallons. Height, 30 inches. Diameter basket, 23 inches. Height, 16 inches. Shipping weight, 43 lbs. Price, each... \$8.00



Rope Plow Line

95 E 5604—Length, 39 feet, with snap on each end to snap in bit. These lines will not kink, and are water-repellent. Lines are for single horse. Shipping weight, about 3 lbs. For single horse line. Price... \$1.35



Horse Ties

Made from 1/2-inch sisal rope. Length, about 8 feet with both snap clamped on. Wt., each, 6 oz.
95 E 5629—Price, each... 25c
Made from about 10 feet of 1/2-inch sisal rope with two snaps and two slides. Wt., each, 13 oz.
95 E 5645—Price, each... 42c



Web Trunk Strap

1 1/2 inches wide, 8 feet long. Heavy brown web with patent buckle, strong, light and durable about 14 ounces.
95 E 5654—Price, each... 50c



Black Web Team Lines

95 E 5599—Web Team Lines, made from heavy No. 1 black Web. Width, 1 inch and intended for plowing or general farm work. The best quality of this kind of line. Length, 18 feet. Shipping weight, per set, 2 lbs. Price, per set... \$1.75
95 E 5600—Same as 95E5599, only heavy 1 1/2 inch x 13 feet. Shipping weight, about 2 1/2 lbs. Price, per set... \$2.45



Neck Halters

Can be adjusted by buckle to fit any horse's neck.
95 E 5651—1 1/4-in. neck strap; 1 1/4-in. x 7-ft. tie. Weight, 1 1/2 lbs. Each... \$1.95
Web Neck Halter, heavy russet web 1 1/2 in. wide, 10 ft. long 2 snaps. Weight, each, about 12 ounces.
95 E 5653—Price, each... 70c



Harness Hardware at a Saving

Improved Round Tongue Harness Snap, Best Grade
The wide nose on the hook of the snap is a very desirable feature. Malleable iron. Jap. (Black) finish.



| Art. No. | Sizes | Weight per Doz. | For 1/2 Dozen | Per Dozen |
|----------|-----------|-----------------|---------------|-----------|
| 95E7094 | 1 1/2 in. | 13 oz. | 30c | \$.57 |
| 95E7095 | 1 in. | 14 oz. | 31c | .60 |
| 95E7096 | 1 1/4 in. | 1 lb. 3 oz. | 46c | .90 |
| 95E7097 | 1 1/2 in. | 1 lb. 12 oz. | 52c | 1.00 |
| 95E7098 | 1 3/4 in. | 2 lbs. 4 oz. | 59c | 1.15 |
| 95E7099 | 2 in. | 2 lbs. 12 oz. | 70c | 1.35 |

Breast Strap Roller Snaps

Made with a large roller, tongue strongly riveted. Malleable iron. Jap. (black) finish.



| Art. No. | Size | Wt., Ea. | Each | Per Dozen |
|----------|-----------|----------|------|-----------|
| 95E7087 | 1 1/2 in. | 9 oz. | 24c | \$2.70 |
| 95E7088 | 1 in. | 10 oz. | 26c | 2.95 |
| 95E7089 | 2 in. | 11 oz. | 28c | 3.20 |

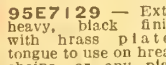
Improved Flat Tongue Harness Snaps



Jap. (black) finish. The springs are made of steel. Best grade of this style of snap.

| Art. No. | Sizes | Weight per Doz. | Per 1/2 Dozen | Per Dozen |
|----------|-----------|-----------------|---------------|-----------|
| 95E7077 | 1 1/2 in. | 1 lb. 3 oz. | 26c | \$.49 |
| 95E7078 | 1 in. | 1 lb. 5 oz. | 27c | .51 |
| 95E7079 | 1 1/4 in. | 1 lb. 6 oz. | 37c | .70 |
| 95E7080 | 1 1/2 in. | 1 lb. 14 oz. | 44c | .83 |
| 95E7081 | 1 3/4 in. | 2 lbs. | 49c | .93 |
| 95E7082 | 2 in. | 2 lbs. 2 oz. | 54c | 1.02 |
| 95E7083 | 2 in. | 2 lbs. 5 oz. | 62c | 1.18 |

Double Snap



95E7129 — Extra heavy, black finish with brass plated tongue to use on breast chains, or any place where a heavy double snap is required. Weight, each, 6 oz. Price, each, 16c.

Bag Snaps

95E7045 — Bag Snaps, malleable iron, nickel plated, bag or baby snaps. Will take strap 1/2 in. Weight, per doz., 3 oz. Price, per dozen, 40c.



The best round eye swivel rope snap made. XC (white) metal finish flat steel spring. Made in 2 sizes.

| Art. No. | Sizes | Weight per Doz. | Per 1/2 Dozen | Per Dozen |
|----------|---------|-----------------|---------------|-----------|
| 95E7109 | 1/2 in. | 14 oz. | 40c | 75c |
| 95E7110 | 1 in. | 1 lb. | 48c | 90c |

Trace Buckles



Double Loop, Champion trace buckles, made of malleable iron. Japan black finish.

| Art. No. | Sizes | Weight Per Doz. | Price Each | Per Dozen |
|----------|-----------|-----------------|------------|-----------|
| 95E7232 | 1 1/2 in. | 4 1/2 lbs. | 11c | \$1.15 |
| 95E7233 | 1 3/4 in. | 5 1/2 lbs. | 13c | 1.35 |



Champion trace buckles, without loops. Malleable iron, Japanned (Black) finish.

| Art. No. | Weight Lbs. | Size Inches | Price Each | Price Dozen |
|----------|-------------|-------------|------------|-------------|
| 95E7238 | 3 | 1 1/2 | 9c | \$.88 |
| 95E7239 | 3 1/2 | 1 1/2 | 10c | 1.02 |
| 95E7240 | 4 1/2 | 1 1/2 | 11c | 1.12 |



Solid Brass Block Letters for attaching to harness, housings, or other leather goods. Size, 1 inch. Weight, each, 1 oz.

95E6337 — Each, \$.13
Per dozen, 1.40

Be sure to state letter wanted.

Harness Spots

Used for ornamenting all kinds of Team, Buggy and Express Harness. Solid metal. Nickel and brass finish. Wt., per dozen, 3 oz.

| Article Number | Finish | Size | Per Dozen |
|----------------|---------------|-----------|-----------|
| 95E6342 | Nickel Plated | 3/4 in. | 8c |
| 95E6343 | Nickel Plated | 1/2 in. | 10c |
| 95E6344 | Nickel Plated | 1 in. | 13c |
| 95E6345 | Nickel Plated | 1 1/4 in. | 15c |
| 95E6346 | Nickel Plated | 1 1/2 in. | 18c |
| 95E6347 | Nickel Plated | 1 in. | 8c |
| 95E6348 | Solid Brass | 3/4 in. | 8c |
| 95E6349 | Solid Brass | 1/2 in. | 9c |
| 95E6350 | Solid Brass | 1 in. | 10c |
| 95E6351 | Solid Brass | 1 1/4 in. | 13c |
| 95E6352 | Solid Brass | 1 1/2 in. | 15c |
| 95E6353 | Solid Brass | 1 in. | 18c |

95E6435 — These White Celluloid Center Rings, with white celluloid heart, with red center are unique as harness decorations. The Heart is 4 1/2 by 4 inches. The diameter of ring is 3 inches. Weight, about 2 oz. Price, each, 65c.



Tyraline Rings (Made of Celluloid)

Tyraline Rings, red, white or blue. Made of Celluloid. Article Number indicates color. Sizes given are manufacturers' dimensions, which are slightly less than standard.

| Sizes | Red | White | Blue | Weight Per Dozen | Price Each | Price Per Dozen |
|-----------|---------|---------|---------|------------------|------------|-----------------|
| 1 1/4 in. | 95E6925 | 95E6932 | 95E6939 | 3 oz. | 12c | \$1.33 |
| 1 1/2 in. | 95E6926 | 95E6933 | 95E6940 | 4 oz. | 13c | 1.52 |
| 1 3/4 in. | 95E6927 | 95E6934 | 95E6941 | 5 oz. | 15c | 1.78 |
| 1 1/2 in. | 95E6928 | 95E6935 | 95E6942 | 6 oz. | 18c | 2.03 |
| 1 3/4 in. | 95E6929 | 95E6936 | 95E6943 | 8 oz. | 20c | 2.30 |
| 1 1/2 in. | 95E6930 | 95E6937 | 95E6944 | 11 oz. | 25c | 2.80 |
| 1 3/4 in. | 95E6931 | 95E6938 | 95E6945 | 12 oz. | 28c | 3.15 |

Japan Harness Rings

Malleable Iron Harness, Halter and Breaching Rings. Japanned (Black) finish only.

| Article Number | Diameter | Weight Per Dozen | Per Dozen |
|----------------|----------|------------------|-----------|
| 95E6975 | 1/2 in. | 1 1/2 oz. | 12c |
| 95E6976 | 3/4 in. | 2 1/2 oz. | 14c |
| 95E6977 | 1 in. | 2 1/2 oz. | 16c |

Solid Brass Rings

Solid Brass Harness, Halter or Breaching Rings, extra fine finish.

| Article Number | Diam. | Weight | For 1/2 Doz. | Per Dozen |
|----------------|-----------|------------|--------------|-----------|
| 95E6991 | 1/2 in. | 3 1/2 oz. | 18c | \$.34 |
| 95E6992 | 3/4 in. | 3 1/2 oz. | 22c | .40 |
| 95E6993 | 1 in. | 5 1/2 oz. | 25c | .48 |
| 95E6994 | 1 1/4 in. | 12 oz. | 37c | .70 |
| 95E6995 | 1 1/2 in. | 13 1/2 oz. | 45c | .86 |
| 95E6996 | 1 3/4 in. | 22 oz. | 53c | 1.05 |
| 95E6997 | 2 in. | 29 oz. | 64c | 1.25 |

Duranoid Rings

Made of composition with iron ring in center.

| | |
|----------------------------|-----|
| 95E6955 — Red. 1 1/4 in. | 40c |
| For 1/2 dozen..... | 75c |
| Per dozen..... | 75c |
| 95E6956 — White. 1 1/4 in. | 40c |
| For 1/2 dozen..... | 75c |
| Per dozen..... | 75c |
| 95E6957 — Blue. 1 1/4 in. | 40c |
| For 1/2 dozen..... | 75c |
| Per dozen..... | 75c |

Bone Trimming Rings

Sizes given are all inside measurements. Diameter, about 1 in.

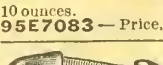
| | |
|-------------------------------|-----|
| 95E6962 — Red. Per doz..... | 52c |
| 95E6963 — White. Per doz..... | 52c |
| 95E6964 — Blue. Per doz..... | 52c |
| Weight, per dozen, 2 oz. | |



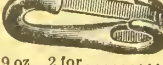
95E7065 — Covert's Round Eye Bolt Snaps for rope, 3/4 in. round loops. XC (white) metal malleable iron. Weight, per doz., 1 lb. Per dozen, 70c For 1/2 dozen, 36c



Heavy sliding Snap, to be used on breast chains; it works on a swivel, and is very strong. Japan (black) finish. Weight, each, 10 ounces. 95E7083 — Price, each, 30c



95E7050 — Triumph Bit Snaps, aluminum steel springs, length, 2 1/2 in. Malleable iron, XC (White) Metal. Weight, per doz., 10c Per dozen, 56c



Conway's Loop Malleable Iron Japan (Black) Finish

| Art. No. | Size In | Weight, Per Doz. | For Doz. | Per Dozen |
|----------|---------|------------------|----------|-----------|
| 95E7295 | 3/4 | 7 oz. | 9c | 15c |
| 95E7296 | 1 | 8 oz. | 10c | 17c |
| 95E7297 | 1 1/4 | 9 1/2 oz. | 11c | 19c |
| 95E7298 | 1 1/2 | 1 1/4 lb. | 20c | 36c |

Twin Loops

Angular Twin Loops. Malleable iron. These loops are adjustable to any thickness of strap and the buckle is free to move to any position desired on a horse strap or any other style of a reverse strap. Japanned (Black) finish.

| Article Number | Size Inches | Weight Per Doz. | 1/2 Doz. | Per Dozen |
|----------------|-------------|-----------------|----------|-----------|
| 95E7303 | 3/4 | 5 oz. | 11c | 18c |
| 95E7304 | 7/8 | 6 oz. | 13c | 20c |
| 95E7305 | 1 | 7 oz. | 15c | 24c |
| 95E7306 | 1 1/4 | 10 oz. | 19c | 33c |



Halter Loops and Rings Malleable Iron, Japanned (black) finish. The sizes given are the sizes of the openings in the loops.

| Article Number | Size | Weight Per Dozen | Price Each | Per Dozen |
|----------------|-----------|------------------|------------|-----------|
| 95E7022 | 1 in. | 1 lb. 6 oz. | 4c | 43c |
| 95E7023 | 1 1/4 in. | 1 lb. 12 oz. | 5c | 50c |
| 95E7024 | 1 1/2 in. | 1 lb. 14 oz. | 6c | 60c |

Halter Squares

Japanned (Black) malleable iron.

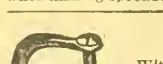
| Art. No. | Sizes | Wt. Per Dozen | Price 1/2 Doz. | Price Dozen |
|----------|---------------|---------------|----------------|-------------|
| 95E7015 | 1 x 1 1/4 | 7 1/2 oz. | 15c | 26c |
| 95E7016 | 1 1/4 x 1 1/2 | 12 oz. | 17c | 30c |
| 95E7017 | 1 1/2 x 1 3/4 | 1 lb. 2 oz. | 22c | 40c |

Brass Loops

Solid Brass Slide Loops polished inside.

95E7029 — Size, 5/8 in. Weight, per dozen, 1 1/4 oz. Price, per dozen, 25c
95E7030 — Size, 1/2 in. Weight, per dozen, 1 1/2 oz. Price, per dozen, 28c

Above loops used for connecting any size rings when making spreader straps.

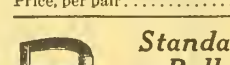


Repair Dees With screw bolts for repairing the ends of breeching bodies or replacing broken or worn out rings in the ends of martingales. Japanned (black) finish. Malleable iron.

| Article Number | Sizes | Weight Per Dozen | Price 1/2 Doz. | Price Per Dozen |
|----------------|-----------|------------------|----------------|-----------------|
| 95E7139 | 1 1/4 in. | 1 lb. 8 oz. | 43c | \$.83 |
| 95E7140 | 1 1/2 in. | 1 lb. 14 oz. | 55c | 1.07 |
| 95E7142 | 2 in. | 2 lbs. 4 oz. | 70c | 1.30 |

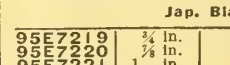


95E7104 — Combination buckle and snap for 1 1/2 inch breast straps. Japan (black) finish. Weight, per pair, 1 pound. Price, per pair, 38c



Standard Harness Roller Buckle Malleable Iron. Japanned (Black) or XC (white) metal finish.

| Article Number | Sizes | Weight Per Dozen | Price Per Doz. |
|----------------|-----------|------------------|----------------|
| 95E7219 | 3/4 in. | 5 1/2 oz. | 15c |
| 95E7220 | 7/8 in. | 7 oz. | 19c |
| 95E7221 | 1 in. | 8 oz. | 19c |
| 95E7222 | 1 1/4 in. | 11 1/2 oz. | 26c |
| 95E7223 | 1 1/2 in. | 15 oz. | 30c |
| 95E7224 | 1 3/4 in. | 1 lb. 4 oz. | 38c |
| 95E7225 | 2 in. | 1 lb. 9 oz. | 47c |



Celulloid Loops

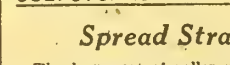
| Article Number | Diam. Inch | Color | Weight per Doz. | Per Dozen |
|----------------|------------|-------|-----------------|-----------|
| 95E7002 | 5/8 | Red | 1 1/2 oz. | 24c |
| 95E7003 | 3/4 | Red | 1 1/2 oz. | 24c |
| 95E7004 | 1 | Red | 1 1/2 oz. | 24c |
| 95E7005 | 5/8 | White | 1 1/2 oz. | 24c |
| 95E7006 | 3/4 | White | 1 1/2 oz. | 24c |
| 95E7007 | 1 | White | 1 1/2 oz. | 24c |
| 95E7008 | 5/8 | Blue | 1 1/2 oz. | 24c |
| 95E7009 | 3/4 | Blue | 1 1/2 oz. | 24c |
| 95E7010 | 1 | Blue | 1 1/2 oz. | 24c |



Spread Strap Roller

The iron part of roller made in two parts, which adjust so you can put the line in the roller. With its use a line never becomes twisted, but is held in proper shape. Jap. (black) finish.

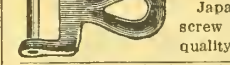
95E7134 — Spread Strap Roller, without strap. Weight, per pair, 3 ounces. Price, per pair, 18c



Cockeyes Japanned (Black) finish screw bolt, cockeyes, best quality. Malleable iron.

| Article Number | Size In. | Weight Per Dozen | Price 1/2 Doz. | Price Dozen |
|----------------|----------|------------------|----------------|-------------|
| 95E7180 | 1 1/4 | 2 lbs. 3 oz. | 5.38 | \$.75 |
| 95E7181 | 1 1/2 | 2 lbs. 8 oz. | .44 | .86 |
| 95E7182 | 2 | 2 lbs. 10 oz. | .54 | 1.05 |
| 95E7183 | 2 1/2 | 2 lbs. 12 oz. | .69 | 1.35 |
| 95E7184 | 2 1/2 | 3 lbs. 10 oz. | .90 | 1.72 |
| 95E7185 | 2 1/2 | 3 lbs. 12 oz. | 1.00 | 1.92 |

Our Utility Cockeyes Made with screw bolt, and used in hame tug and clip hame; also used in trace. In three sizes, 1 1/4, 1 1/2 and 2 in. Malleable iron. Jap. (Black).



Patented Clip Cockeye

| Art. No. | Size | Weight | Set of 4 |
|----------|-----------|--------|----------|
| 95E7190 | 1 1/4 in. | 12 oz. | 36c |
| 95E7191 | 1 1/2 in. | 14 oz. | 39c |
| 95E7192 | 2 in. | 16 oz. | 48c |

95E7197 — Made of the best malleable iron. Jap. (Black). 1 1/4 inch high-grade, clip cockeye. Made to fit any trace. Weight, per set, about 23 ounces. Price, per set of (4) 40c

Flat Tongue Harness Snaps

Malleable iron. Jap. (Black) finish. We handle only the heaviest and the best snaps of this style made.

| Art. No. | Size | Weight per Doz. | For 1/2 Dozen | Per Dozen |
|----------|-----------|-----------------|---------------|-----------|
| 95E7035 | 3/4 in. | 12 oz. | 17c | 31c |
| 95E7036 | 1 in. | 13 oz. | 18c | 33c |
| 95E7037 | 1 1/4 in. | 1 lb. 10 oz. | 30c | 56c |
| 95E7038 | 1 1/2 in. | 1 lb. 12 oz. | 39c | 74c |

Imperial Harness Snaps

The best grade of this style snap. Black finish.

| Art. No. | Sizes | Weight per Doz. | For 1/2 Dozen | Per Dozen |
|----------|-----------|-----------------|---------------|-----------|
| 95E7115 | 3/4 in. | 12 oz. | 44c | \$.85 |
| 95E7116 | 1 in. | 1 lb. 4 oz. | 45c | .88 |
| 95E7117 | 1 1/4 in. | 1 lb. 9 oz. | 46c | .90 |
| 95E7118 | 1 1/2 in. | 1 lb. 11 oz. | 52c | 1.00 |
| 95E7119 | 1 3/4 in. | 1 lb. 13 oz. | 56c | 1.10 |
| 95E7120 | 1 1/2 in. | 3 lb. 7 oz. | 75c | 1.40 |
| 95E7121 | 2 in. | 4 lb. 2 oz. | 80c | 1.55 |

Bolt Snaps

Covert's Banner Bolt Snaps. The principal feature of this snap lies in the spring being entirely covered, shutting out all foreign substances. Malleable iron. XC (White) metal.

Cut Prices on Good Harness Hardware

Lumber Style Butt Chain



95E6875—Chain is made to stand hard work. Metal is hardened and capable of standing the heaviest strain. This is something well worth the money. Lumber style trace butt chains, 36 in. long, 1/4 inch wire swivel and with ring at end. Weight, per set of 4, about 9 1/2 pounds.
Price, per set of 4.....\$2.05

Snap Heel Chains



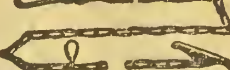
A good type of chain to have on hand. Will help you in your repair work. Made of 3/4-in. wire, 4 links, with snap, about 15 in. Can be used either for repair or for lengthening traces. You will find the snap a great convenience and time saver.
95E6868—Weight, per set, about 5 lbs. 4 oz.
Price, per set (4).....\$1.00

Heel Chains



With Swivels and Screw Dees. Can be used either for repair work or for new work on team traces. Six links, swivel and screw dee, 3/4-inch wire, made in three sizes.
95E6861—Size, 1 1/2 in. Weight, 5 lbs.
Price, per set (4).....\$1.25
95E6862—Size, 1 1/2 in. Weight, 5 lbs. 2 oz. Price, per set (4).....\$1.30
95E6863—Size, 2 in. Weight, 5 lbs. 4 oz. Price, per set (4).....\$1.35

Round Wire Halter Chains



Uniformly made of hard steel wire. A strong, safe chain at a low price.

| Glive Art. Number | 95E5045 | 95E5048 |
|-------------------|-------------|-------------|
| | Medium Wire | Medium Wire |
| Length, feet. | 4 1/2 | 6 |
| Size. | 00 | 00 |
| Gauge. | 10 | 10 |
| Weight. | 14 os. | 20 os. |
| Each. | 24c | 34c |

Flat Link Halter Chains



Bright finish, steel chain, weldless steel links, like safety chain, very strong

| Glive Art. Number | 95E5051 | 95E5052 |
|-------------------|-------------|-------------|
| | 4 1/2 | 6 |
| Length, feet. | 00 | 00 |
| Size. | 1 1/4 x 1/4 | 1 1/2 x 1/4 |
| Links. | 14 oz. | 15 oz. |
| Weight. | 50c | 60c |
| Each. | | |

Trace Chains



95E6873—Medium weight, bright finish trace chains, made from the very best material, and known as 7-8-2—meaning, 7 feet long, 8 links to the foot and number 2 wire which is 1/4 inch. Weight, per pair, 6 lbs.
Price, per pair (for one horse).....\$1.20
95E6874—Extra heavy, bright finish trace chains, made from the very best material, and known as 7-8-0—meaning 7 ft. long, 8 links to the foot and number 0 wire, which is 5/16 inch. Weight, per pair, 10 lbs.
Price, per pair (for one horse).....\$2.05

95E6317—Quarter Boots, strictly first quality, close fitting, protects inside of pastern, 3 straps, small, medium or large. Shipping weight, per pair, 16 oz.
Per pair.....\$5.25

95E6322—Front Leg Shin and Ankle Boots, high grade cold felt lined. leather cap, three straps; length, 9 1/2 inches. Shipping weight, per pair, 12 ounces.
Per pair.....\$3.25

95E6290—Poultice stuffing or Lawn Boots, single harness leather uppers, with heavy soles of several thicknesses of leather. Weight, 1 lb., 12 oz.
Per single boot.....\$3.75

95E6312—Ankle Boots can be used on either front or hind ankles. Heavy leather shield, kersey lining and warp, 2 straps. Weight, per pair, 6 ounces.
Price, Per pair.....\$1.10

95E6295—Ankle Boots, molded russet leather, one strap. These are the highest quality, low-priced ankle boots we offer. Weight, per pair, 4 ounces.
Per pair.....55c

Swabs or Soaking Boots

95E6271—Soaking Boots to huckle over horses' hoofs to keep them soft. Made of heavy gray felt. Two straps and buckles on each, and three extra rows of stitching. Soak well with water and apply in the evening. They will keep wet all night. Open at bottom.
Weight, each 6 oz. Each.....65c

Thimbles and Eyes for making Cattle, Horse Ties or Rope Halters. XC (white) metal plated.

| Art. No. | Weight per Doz. | Sizes | For 1/2 Doz. | Price Per Doz. |
|----------|-----------------|---------|--------------|----------------|
| 95E7154 | 12 1/2 oz. | 1/2 in. | 39c | 75c |

Adjustable Breast Chain

95E6888—Superior quality made of refined malleable iron non-breakable. Imitation rubber finish and brass tongues on snaps. Length, 32 inches, including snaps.
Wt., per pair, about 4 lbs. 8 oz.
Price, per pair.....\$1.80

Breast Chains



95E6879—Bright Breast Chains, with "Ts" or toggles on each end. These chains are very serviceable, very convenient and very cheap. Made of twist link chain, size 1/4 in. iron, with bright polished finish. Length, 26 inches. Weight, per pair, 2 lbs. 10 oz.
Per pair (2).....95c

Breast Strap Slides



Japanned (Black) Iron, to use on breast straps of team harness. A very satisfactory slide.

| Article Number | Sizes | Weight Each | Price Each | Price Dozen |
|----------------|-----------|-------------|------------|-------------|
| 95E7147 | 1 1/2 in. | 6 oz. | 8c | \$.90 |
| 95E7148 | 1 1/2 in. | 6 1/2 oz. | 9c | .95 |
| 95E7149 | 2 in. | 7 oz. | 10c | 1.00 |

Drop Terrets
Made to rivet on back bands, hinged. Weight, 2 1/4 ounces.
95E7335—Japan (black) finish.
Price, each.....13c

Drop Check Hooks

To rivet on back bands, made of malleable iron, with hinge.
95E7357—Japan (black) finish. Weight, 3 ounces.
Price, each.....15c

Check Hooks

95E7362—Loop end bolt hooks for pads on team harness. Steel japanned (black) finish. Weight, 2 1/4 inches.
Price, each.....12c

Dunlap Safety Check Hook

As shown in illustration: for single or double buggy harness. Weight, 1 1/2 ounce.
95E7374—Nickel plated.
Price, each.....16c
95E7375—Imitation rubber.
Price, each.....16c
95E7376—Brass.
Price, each.....16c

Straight Concord Clips

Concord clips for repair purposes. These clips are very useful articles for repairing the front ends of traces used with either holt or square staple hames, or the heel ends of any traces. Japanned (Black) finish. Malleable iron.

| Article Number | Size Inches | Weight Each | Price Each |
|----------------|-------------|-------------|------------|
| 95E7311 | 1 1/2 | 5 oz. | 8c |
| 95E7312 | 1 1/2 | 6 oz. | 10c |
| 95E7313 | 2 | 6 oz. | 11c |
| 95E7314 | 2 1/4 | 7 oz. | 14c |

Jointed Concord Clips

Concord Clip attachment for bolt hame so you can clip the trace and have a joint at the hame. Is made in sizes as follows: Sizes are for hame holt; end that attaches to trace is standard width. Malleable iron. Jap. (Black) finish.

| Article Number | Width where attached to Hame | Weight | Price Each |
|----------------|------------------------------|------------|------------|
| 95E7329 | 2 in. | 12 oz. | 30c |
| 95E7330 | 2 1/2 in. | 12 1/2 oz. | 33c |

95E7331—Jointed Concord Clips for use on holt traces, style our 95E-5741, the clevis which goes into the trace can be used on 1 1/2 in., 1 3/4 in. or 2 in. trace.
Weight, per set of (4), about 3 pounds.
Price, each.....55c

95E6876—Toggle Clip with 6-link chain. 1/4-inch wire clip, 1 1/4 inch wide, can use on 1 1/2 and 1 3/4 inch traces. Weight, per set of (4) about 6 1/2 pounds.
Price, per set of (4).....\$1.55

Trace Splicers



95E7165—Malleable Iron Jap. (Black). For mending traces. For traces of buggy, express or farm harness. Weight, per dozen, 1 lb. 2 oz.
Per dozen.....45c
Per 1/2 dozen.....25c

Trace Splicers



95E7170—Joint Trace Splicer for the rapid splicing of farm traces. Ninety-five per cent of the traces that break are broken in the huckle hole. These splicers are intended to repair such traces. Polished malleable iron. Insert malleable end toward heel of trace. Weight, per dozen, 1 lb. 8 oz.
Price, each.....8c
Price, per dozen.....90c

Gag Runners



Malleable iron. Japan (black) finish. To be attached to the billets on the crowns of bridles for slide check reins to pass through.

| Article Number | Sizes | Wt., per Doz. | Price per Set (4) |
|----------------|---------|---------------|-------------------|
| 95E7368 | 1/2 in. | 1 lb. | 18c |
| 95E7369 | 1/2 in. | 1 lb. | 19c |



Fancy Hip Spreaders

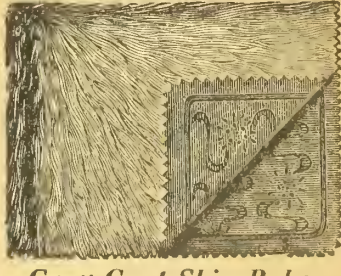
95E6444—Made of harness leather, double and stitched, with one row of round spots. White Duranoid ring on lower end and a black snap on upper end to snap on ring of hip. Length of leather part, 9 in. Weight, each, 6 oz.
Price, each.....80c

Ward's Robes Cannot Be Surpassed in Value

Imitation Bear Robes

This Cub Bear Robe is an attractive and well made selection. It is made from inspected Japanese goat skins and is dyed. The dyeing process, however, has no effect upon the quality of the hide or hair. The lining is of a superior quality plain plush and finished with a double border and scalloped edge.

95E4866—Size, about 54x66 in. Dyed brown. Weight, 10 lbs.
95E4860—Same as 95E4866 only dyed black.
95E4867—Same as 95E4866 only extra large size, 60x70 inches. Weight, 11 pounds.
95E4861—Same as 95E4867 only dyed black.



Gray Goat Skin Robes

The Best Quality Robe of Its Kind

95E4875—Lined with fancy felt cloth, scalloped border. Size 47x59 in. Weight, 5 1/2 lbs.
95E4876—Lined with heavy blanket lining, single border. Size 48x60 inches. Weight, 6 1/2 pounds.
95E4877—Standard size: lined with extra heavy plain plush, scalloped borders in fancy colors. Size, 48x60 in. Weight 7 1/2 lbs.

95E4878—Large size: deodorized, lined with heavy blanket lining, scalloped felt border. Size, 54x66 in. Weight, 8 1/2 lbs.
95E4879—Large size: Oriental goat fur robes, deodorized, lined with extra quality plain plush and trimmed with scalloped felt border. Size, 54x66 in. Weight, 9 1/2 lbs.
95E4880—Extra large size: deodorized Oriental goat fur robes, lined with super quality plain plush, fancy double scalloped borders. Size, 60x70 in. Weight, 12 lbs.

Buffalo Fur Cloth Robes

Made of three seamless parts, viz.: The face of all wool fur cloth with heavy back. Interlining of genuine rubber drill of superior quality, which does not get hard and crack in cold weather, and makes the robes wind and waterproof. The back, or lining, made of the best Astrakhan cloth, handsome and serviceable. Double row border of high-grade felt.

Heavy Buffalo Cloth Robes

| Article Number | Color | Size Inches | Weight | Price Each |
|----------------|-------|-------------|--------|------------|
| 95E4885 | Black | 54x62 | 7 lbs. | \$13.25 |
| 95E4886 | Brown | 54x62 | 7 lbs. | \$13.25 |

Extra Heavy Buffalo Cloth Robes with Turned and Bound Edge—No Border

| Article Number | Color | Size Inches | Weight | Price Each |
|----------------|-------|-------------|--------|------------|
| 95E4887 | Black | 54x62 | 8 | \$14.70 |
| 95E4888 | Brown | 54x62 | 8 | \$14.70 |
| 95E4889 | Black | 54x72 | 9 | \$16.95 |
| 95E4890 | Brown | 54x72 | 9 | \$16.95 |

Iceland Motor Robe

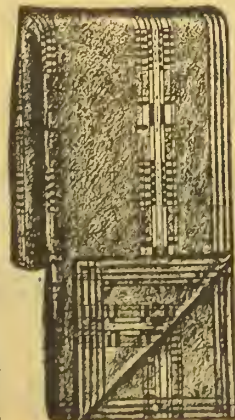
An extra big bargain in a part wool robe, a dark gray and black body with fancy stripes. Has one inch turned lay all around, and three rows of stitching.

95E4709—Size, 54x74, in. chee, weight, about 4 1/2 lbs.
.....\$4.25

Princess Motor Robe

Contains abt. 50 per cent wool, well made, good warp, fluffy and soft. Dark blue body and fancy plaid stripes. 1 1/2 in. turned lay all around and 3 rows of stitching.

95E4725—Size, 54x74 in. chee Weight, about 4 1/2 lbs.
.....\$5.25



Ward's Lakeside Shearing Machines

Clip Your Horses to Keep Them Healthy

WHEN you work your horses regularly and let them get numerous hard sweats that can't dry over night because of a long coat of hair — you know the result. They lose flesh; are open to numerous horse ailments; and drop off in energy generally.

Shearing horses regularly keeps them in fine trim for any job; keeps them well conditioned; prevents trouble.

The Lakeside Shearing Machine costs little; can be run by anyone; and will pay for itself even on a "one-horse" farm.

If you have sheep and cattle—so much the better; put the Lakeside to greater use and profit.

Ward's Lakeside is smooth-running; strongly built; practically fool-proof; the speed at which it will work is entirely up to how fast you operate it. Complete, simple instructions for operating and caring for the blades accompany each machine.

95 E 13—Improved Lakeside Horse Clipping Machine, without grinder. Shipping weight, 40 pounds. **\$11.25**

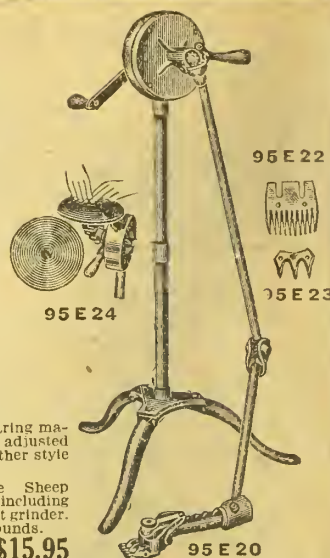
95 E 14—Combination Sheep Shearing and Horse Clipping Machine, without grinder. Shipping weight, about 60 pounds. Price, complete. **\$21.95**

95 E 11—Sheep Shearing Attachment, ready to attach to 95 E 13 horse clipping machine. Shipping weight, 9 pounds. Price. **\$10.90**

95 E 40—Horse Clipper Handle, complete with Knives. Ship. wt., 18 oz. Price. **\$3.65**

95 E 50—Horse Clipper Top Plates. Shipping weight, 6 ounces. **1.05**

95 E 61—Horse Clipper Lower Plates. Shipping weight, 8 ounces. **1.40**



In the shearing head of our shearing machines, the knives are easily adjusted and stay sharp longer than any other style of knife.

95 E 20—Improved Lakeside Sheep Shearing Machine, complete including four cutters and four combs without grinder. Boxed, shipping weight, about 50 pounds. **\$15.95**

Price, each. **\$15.95**

95 E 22—Extra Lower Plates. Shipping weight, 3 ounces. Each. **55c**

95 E 23—Extra Upper Plates. Shipping weight, 1 ounce. Each. **20c**

95 E 24—Price of Grinder only, packed and shipped separately. Shipping weight, 12 pounds. Price. **\$5.75**

Complete instructions for operating Grinder 95 E 24 and sharpening of the blades to us by mail packed securely, and we will do the work at a minimum cost. Comb and cutter for sheep shear, per set, 50c; horse clipper, per set, 70c. Be sure to include the necessary return shipping charges. When ordering new plates, return your old ones to us as a sample.

Handy Clippers

95 E 6763—Nickel-plated steel. Suitable for one having only occasional use for clippers of this style. Weight, each, 6 ounces. **\$1.88**
Each. **65c**
Extra top plates. Each. **35c**
Extra springs, each. **20c**

High Grade Clippers

95 E 6764—New Market pattern our high-grade Horse or Dog Clippers. A practical and durable clipper. Wt., each, 17 ounces. **\$3.00**
Each. **\$1.00**
Extra top plates. Each. **\$1.75**
Extra bottom plates. Each. **\$1.75**



Horse or Mule Shears

95 E 6780—Made with curved blades for trimming manes, tails, etc. Half polished blades; made from a high grade of shear steel. Weight, each, about 6 ounces. **48c**



Roaching Shears

95 E 6785—Made of laid steel and perfectly uniform in temper which makes them keep an even cutting edge. Especially made for trimming horses' manes, tails, fetlocks, etc. Length, about 7 1/2 in. Wt., ea., 7 1/2 oz. **\$1.95**



Extra Good Feed Bag

95 E 3908—Heavy wt. white cotton duck, with leather bottom and extending up about 3 in. all around with ventilator, and 3/4-in. leather strap to go over head. A very good bag. Wt., ea., 16 oz. **\$1.40**
Price, each. **\$1.40**

Popular Feed Bag

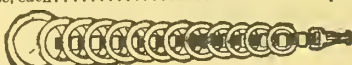
95 E 3907—This is a good, low-priced feed bag, and a popular one. It is of medium weight, white cotton duck, with leather bottom, and ventilator and 3/4-in. leather strap to go over head. Wt., ea., 12 oz. **95c**
Price, each. **95c**

Spreaders



Made of Celluloid

95 E 6412—All White rings made of celluloid, 13 rings graduated from 1 1/4 inch at the end to 1 3/4 in. next to snap; on 5/8 inch black strap and 13 white celluloid loops with black snap. Length about 20 inches over all. Weight, each, about 14 oz. **\$1.95**
Price, each. **\$1.95**



95 E 6398—This is a desirable sort of ornament. Red, Blue, White assorted duranoid ring spreader. Duranoid rings are made of a composition with iron ring in center; length over all about 16 inches. Weight, about 12 ounces. **\$1.25**
Price, each. **\$1.25**



Made of Celluloid

95 E 6413—All White 7-Ring Spreader, 7 loops on 3/4-in. black strap, with snap on end. Length, over all, 14 in. Wt., each, 10 oz. **\$1.25**
Price, each. **\$1.25**

95 E 6415—Spreader, same as above, only with fifteen, 1 1/4-in. celluloid rings and bottom ring 1 3/4-in. Weight, each, about 19 ounces. **\$2.30**
Price, each. **\$2.30**



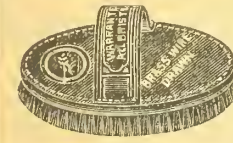
95 E 6388—New Brass Spreaders, 3/4-inch black strap, with four solid brass discs, raised center with snap and large white celluloid ring on ends. Brass slide loops. Length, 12 inches. Weight, about 5 oz. **95c**
Price, each. **95c**



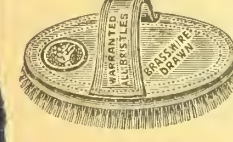
Celluloid Spreader 12 red, white and blue rings. Eleven rings 3/4-inch and one 2-inch. 3/4-inch strap, 12 celluloid loops. Total length of spreader, 15 in. Size of rings mean inside measurement. Weight, about 5 ounces. **\$1.50**
95 E 112—Price, each. **\$1.50**



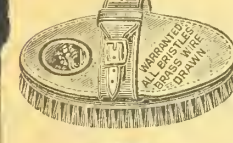
95 E 6615—This style of brush has an oval shape, leather back heavy harness leather strap. 11 rows of stiff black, imported tambo. Size of brush, 9x4 1/2 in. Wt., 9 oz. **60c**
Each. **60c**



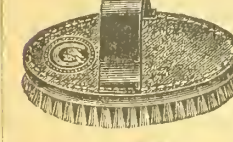
95 E 6670—Guaranteed all bristles brass wire drawn, russet leather back stitched around edge. Size of brush, 8 1/2 x 4 1/2 in. Wt., each about 12 oz. **\$1.95**
Each. **\$1.95**



95 E 6665—This Brush is made on a genuine leather back with fifteen rows of stiff black Chinese bristles, brass wire drawn. The back and strap are made of heavy black grain leather. This is the best all-bristle brush we ever sold for the money. Size of brush, 9x4 1/2 in. Wt., each, 8 oz. **\$1.20**
Each. **\$1.20**



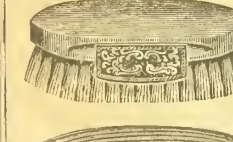
95 E 6675—Extra quality, solid russet leather back, buckle on hand strap. Large oval face, with nineteen rows of stiff natural yellow Russia bristles brass wire drawn. All the material in this brush is first, class in every way. Size of brush—8 1/2 in. by 4 1/2 in. Wt., ea., 12 oz. **\$3.65**
Each. **\$3.65**



95 E 6600—Oval shape, flat face Horse Brush. Eight rows gray tambo center and white outside. Embossed back with good leather strap. Size of brush 8 1/2 in. by 4 1/2 in. Wt., each, 7 oz. **45c**
Each. **45c**



95 E 6605—Compactly filled with the good quality of brown India fiber. This is a large size brush, a good cleaner, and very serviceable. Oval shape, hard wood backs. Size, 8 1/4 inch by 3 1/4 inch leather handle. Wt., each 11 oz. **30c**
Each. **30c**

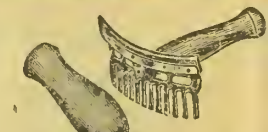


95 E 6620—Made from the very finest and most carefully selected Mexican rice root. Beautiful white maple backs, finished with shellac. Leather finger guards on each side of brush. Length of back, 10 in. Wt., each, 14 oz. **70c**
Each. **70c**



95 E 6610—Tambo Dandy or Danduff Brush. These brushes are made from a fine grade of gray Tambo, specially prepared. Wt., each, about 15 oz. **75c**
Each. **75c**

95 E 6700—Mane Comb Shedder and Sweat Scraper combined. A good, strong iron mane comb, with a rubber shedder or sweat scraper, 5 1/4 in. long on the back. Far superior to a wooden sweat scraper. Wt., each, 8 oz. **25c**
Each. **25c**



95 E 6746—Warranted steel, 3-bar, extra heavy steel, wrought iron shank passing through enameled handle and riveted. Wt., each, 8 oz. A satisfactory comb that will stand hard and rough wear. **25c**
Each. **25c**



95 E 6721—Large size 3 1/2 x 8 in. Horse and Cattle Cards. Wire teeth, wood back and handle. This comb has sold exceedingly well and has satisfied many customers. Wt., about 7 oz. **45c**
Each. **45c**



95 E 6736—Made of all steel, 8 bars riveted, shanks passing through handles and riveted. Black enameled handles, steel ferrules. Scraper all steel riveted to comb. Weight, each, about 9 oz. **33c**
Each. **33c**



95 E 6705—Humane Reformed Curry Comb. Galvanized steel, bronze finish. Self-cleaning as no hair can stick to the teeth or clog between bars. Slightest tap on its face cleans it. Solid leather handle size, 6 1/2 x 4 1/4 in. Wt., each, about 6 ozs. **15c**
Each. **15c**



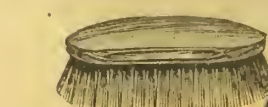
95 E 6726—Patent Circular. Extra heavy steel shank passing through handle and riveted steel knocker. This is the highest grade comb of its kind on the market. Wt., each 11 oz. **30c**
Each. **30c**



95 E 6655—Steel Wire Horse Brushes. Size of back, 3 1/4 in. wide by 8 in. long. Length of wire, about 1 1/2 in. Weight, each, 13 ounces. **90c**
Each. **90c**



95 E 6630—Solid hard wood backs, highly polished, compactly filled with best quality of India fiber trimmed 1 1/4 in. clear of the block. Length of brush, 9 1/2 in. Wt., each, 10 oz. **35c**
Each. **35c**



Use Power and Save Your Back

Machine Power Costs Less Than Man Power

It Does Faster and Better Work

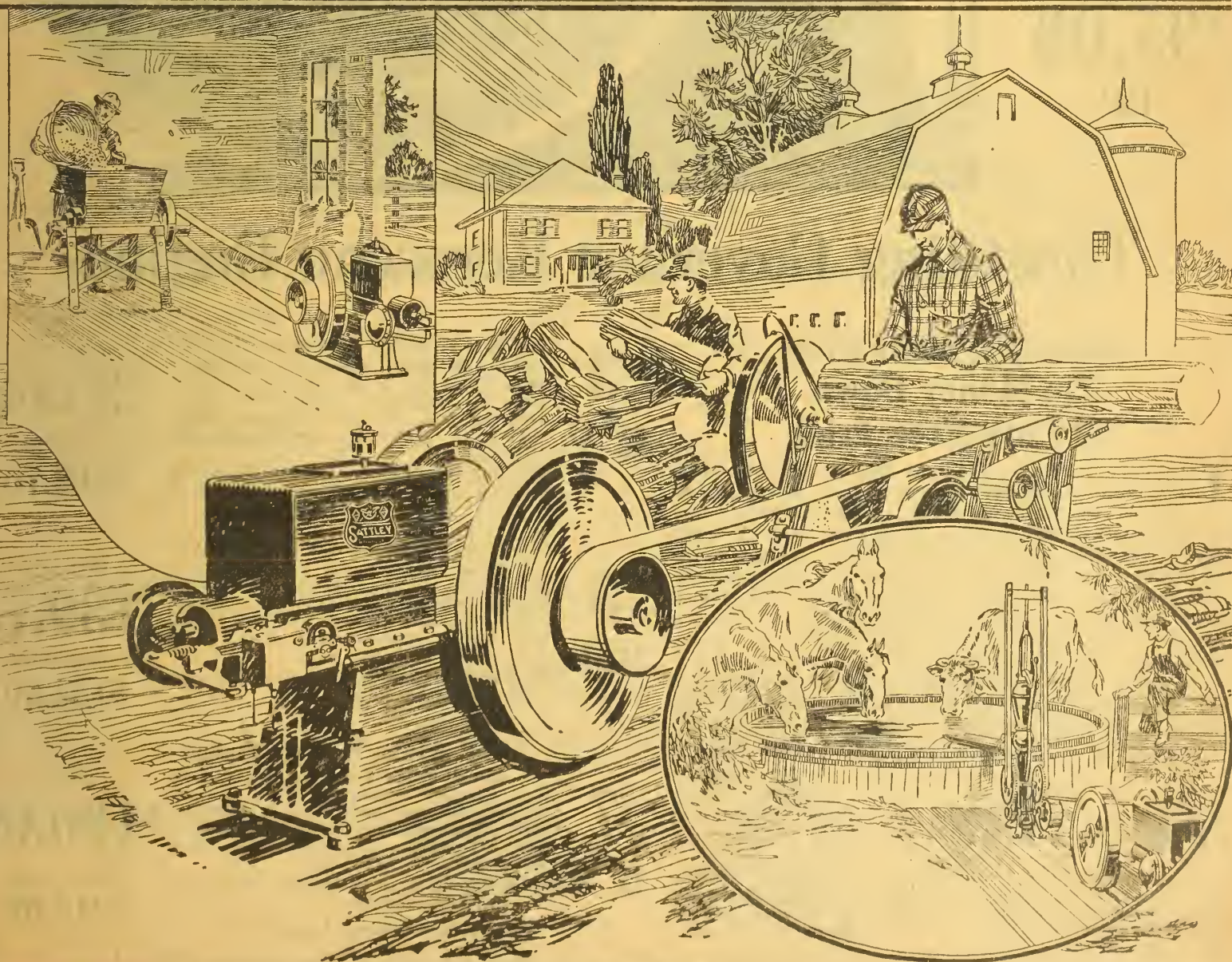
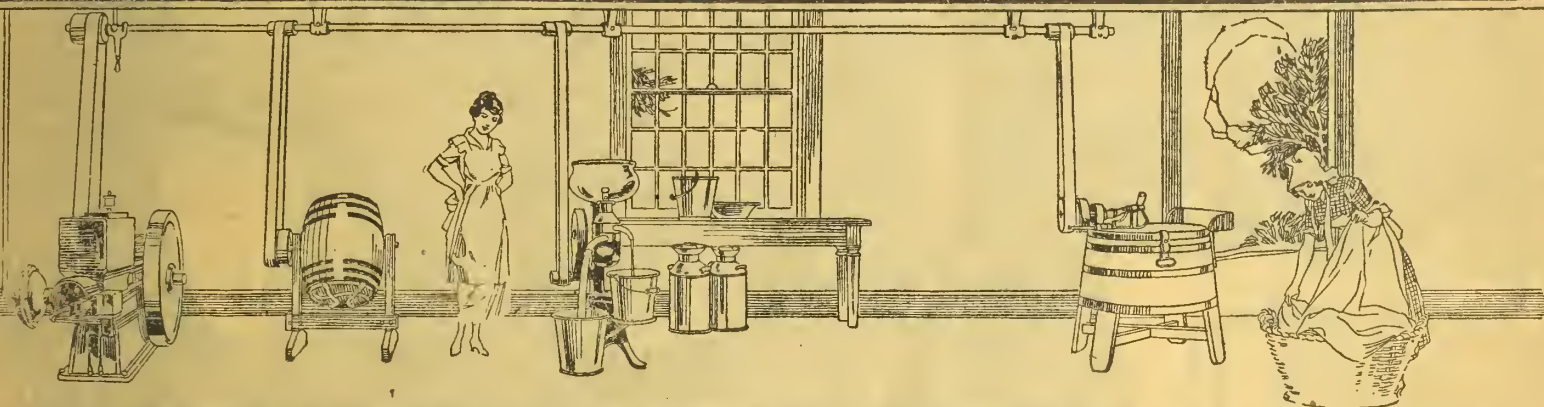
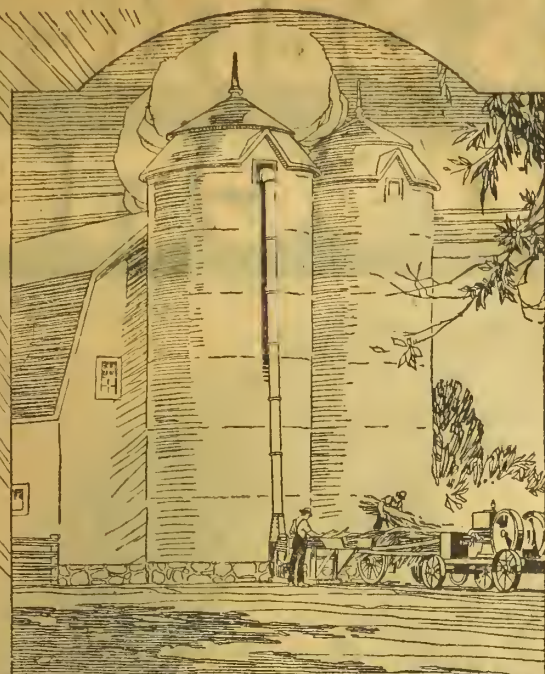
MACHINE POWER will run your feed grinder, pump, shearing machine, feed cutter, concrete mixer, cream separator, washing machine, wringer, saw mill, churn, grindstone, silo filler, electric light plant, and electrical equipment, such as, electric irons, toasters, heaters, lights, motors, vacuum cleaner, sewing machine and many other farm devices.

Power on the farm means more work in less time. Thousands of farmers are installing gas engines and electric motor driven machinery and becoming independent of hired help.

Power-operated labor-saving devices will cut your chore time in half; they will put a hard washing on the line an hour earlier and without an ache; they will eliminate drudgery and make life happier.

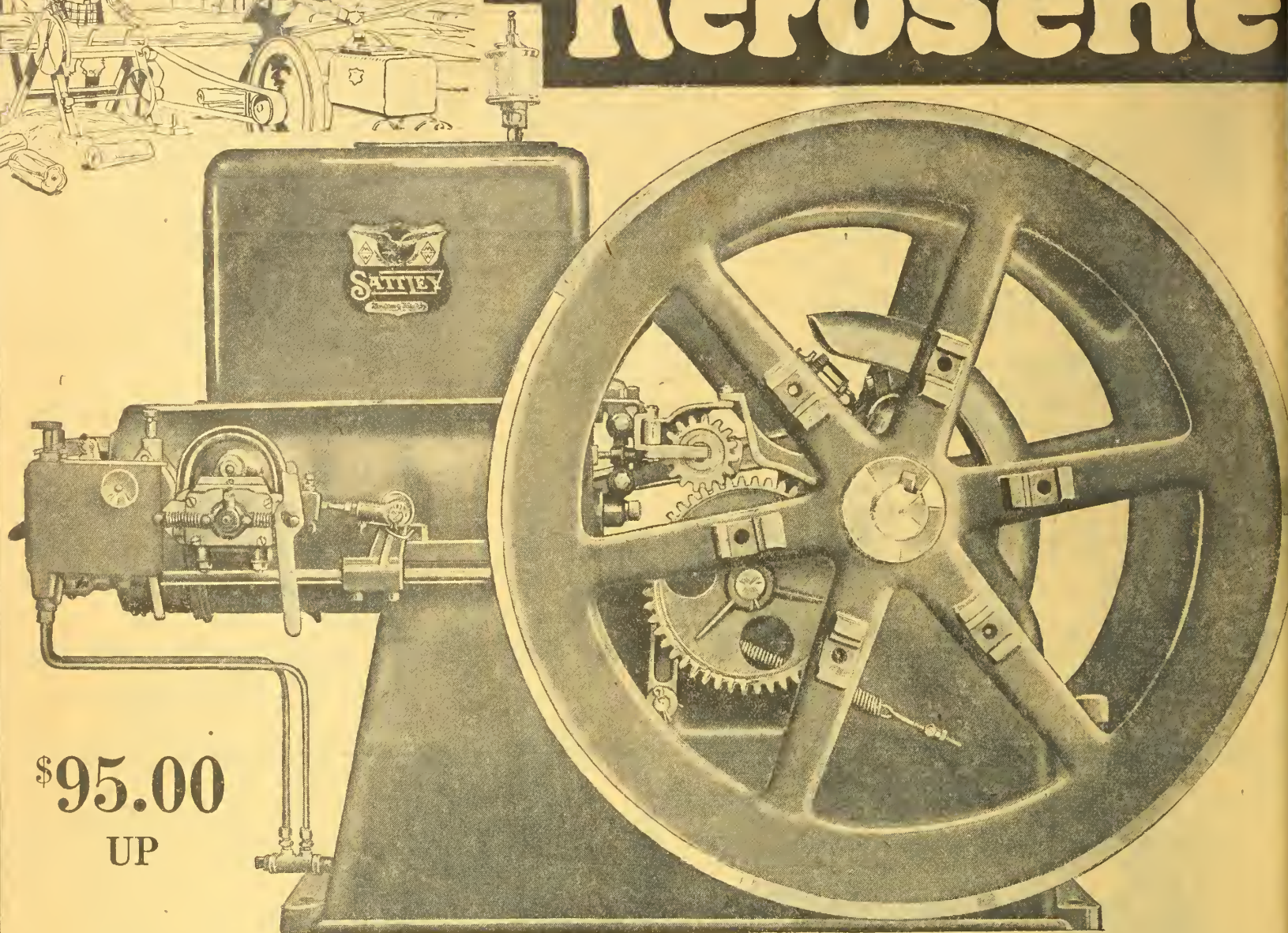
All of our farm machinery and power equipment is designed by practical farm engineers and built right in every particular.

Also they are priced right. The mail order factory-to-you system makes low prices possible. Many are sold on easy payments. Study the power equipment in this book and make a start toward a power-operated farm.





Ward's Sattley Kerosene



\$95.00
UP

Throttling Governor Kerosene Engines

**Easy Payment Plan
No Money Down
30 Days Free Trial**

YOU do not need to send any money with your order. By taking advantage of our easy payment plan you may use the engine for thirty days on your work before it will be necessary for you to send us any payment whatever. During this thirty days' time you will have a chance to try the engine thoroughly and satisfy yourself that it is exactly what you want. Use it on your wood saw, grinder, or feed cutter, or on the pump jack, washing machine or churn, give it a good test and notice how well it does the work. Learn for yourself how easy it is to start and operate and how much power and service you can get out of each gallon of fuel used. We want you to be entirely satisfied with your purchase. When you are convinced that the engine is exactly as represented, send us your first payment which need not exceed one-tenth of the purchase price. By spreading the remainder of your payments over a period of several months, as is possible under this plan, you will have a chance to make the engine do considerable work of a profitable nature and in that way help pay for itself.

Just use the order blank which you will find on page 870. Indicate the engine you want, showing the catalog number and easy-payment price. As soon as the order is in proper form and all information supplied, the engine will be sent to you. Try to get your order in early.

3 H. P. Sattley Kerosene Engine
3 Actual Horse Power at normal speed. Bore, 4 $\frac{1}{4}$ inches. Stroke, 6 inches. Webster Magneto. Flywheel, diameter, 22 inches. Flywheel face, 2 $\frac{1}{4}$ inches. Normal Speed, 550 R. P. M. Pulley, 6x4. Shipping weight, 515 pounds.
289 E 5161—3 Horse Power Sattley Throttling Governor Kerosene Engine.

Cash Price
\$95.00
Payment Price
\$104.75

5 H. P. Sattley Kerosene Engine
5 Actual Horse Power at normal speed. Bore, 5 $\frac{1}{4}$ inches. Stroke, 7 inches. Webster Magneto. Normal Speed, 475 R. P. M. Pulley, 12x6. Flywheels, diameter, 28 inches; weight, each, 150 lbs. Crankshaft, 2 inches. Shipping weight, about 935 pounds.
289 E 5165—5 Horse Power Sattley Throttling Governor Kerosene Engine.

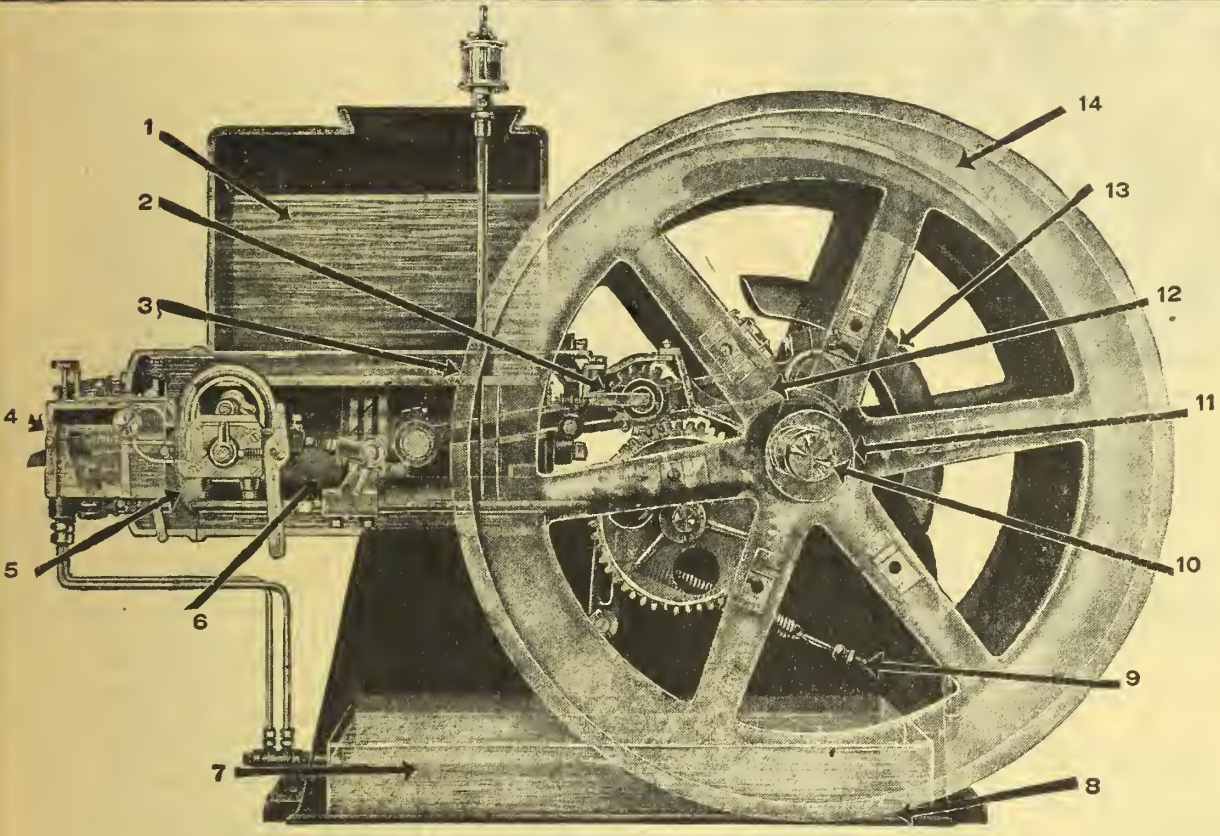
Cash Price
\$139.75
Payment Price
\$154.50

7 H. P. Sattley Kerosene Engine
7 Actual Horse Power at normal speed. Bore, 6 inches. Stroke, 8 $\frac{1}{2}$ inches. Webster Magneto. Normal Speed, 400 R. P. M. Pulley, 16x6. Flywheels, diameter, 34 inches; weight, each, 230 pounds. Crankshaft, 2 $\frac{1}{8}$ inches. Shipping weight, 1320 pounds.
289 E 5167—7 Horse Power Sattley Throttling Governor Kerosene Engine.

Cash Price
\$190.00
Payment Price
\$210.00

Shipped from Factory in Springfield, Ill.

THROTTLING GOVERNOR Engines



**Easy Payments
No Money Down
10 Months to Pay**

14 Reasons Why You Should Buy a Sattley

- Number 1. Ample cooling capacity in every size. No danger of Sattley Engines becoming overheated.
- Number 2. The Throttling Governor economical in fuel consumption.
- Number 3. The Oiling System that you cannot overlook or forget. Automatic Sight feed lubricator supplies oil to piston, cylinder and wrist-pin bearings.
- Number 4. Kerosene Mixer with mechanically operated fuel pump.
- Number 5. Webster Oscillator Magneto. Insures easy starting. No wiring or short circuits.
- Number 6. Large Cylinder Bore and Stroke for every size. Ample power at moderate speeds. Smooth finish insures long life and smooth running.
- Number 7. Fuel Tanks Inside Base, Safety First. Completely protected from damage by the heavy iron base. No danger of fire.
- Number 8. Heavy Cast Base high enough to support the flywheels clear of the guard.
- Number 9. Adjustable side rod pull back spring.
- Number 10. Extra heavy Crankshaft made of drop forged steel. Ground and polished.
- Number 11. Wide Main Bearings adjustable. Wick oiled.
- Number 12. Connecting Rod especially designed of "I" beam section. Wide bearings to take up wear.
- Number 13. Heavy Strong Cast Shield, not thin sheet steel as is sometimes used.
- Number 14. Large Heavy Flywheels properly counterbalanced, insure smooth steady running without vibration.

Built So You Can Easily Understand It

Made of the Best Materials

IN constructing the Sattley engine we put into it the best we have in both workmanship and material. The castings are made from close-grained grey iron and each casting is inspected when received from the foundry to detect any flaws which may have occurred in the molding. Great care is used in machining and fitting the various parts.

3 and 5-horse power, casting is made in one piece. For the 7-horse power engine we use a double base so that when this engine is mounted on a truck the lower base may be removed. This base casting is designed to support the engine and withstand the weight and vibration through all the years the engine will be in use. We believe you will appreciate the fact that a substantial base of this kind is far superior to wooden skids.

Bearings

All bearings are provided with suitable oil holes or grease cups so that they may be properly lubricated. The crankshaft bearings are babbitted with the best grade of babbitt metal we can get. The bearings are made of sufficient length to give the crank shaft plenty of bearing service.

Cylinder

The cylinder and base are made separate. If you wish to replace the cylinder at any time this can be done without changing the base casting. The cylinder head is bolted to the cylinder by four heavy studs with a carefully cut gasket in the joint, to make the connection absolutely tight.

The Fuel Tank

The fuel tank is inside the base. There it is protected from injury and practically eliminates the danger of fire. Each fuel tank is tested under pressure to be certain that there is no leakage. Filler pipe is provided for putting in the gasoline or kerosene which the engine uses for fuel.

Reliable Ignition

You want your engine to start easily in cold weather and to run steadily without missing explosions. That is why each Sattley Engine is equipped with a Webster Oscillating Magneto. It not only saves the expense of dry cells but it produces a better and more regular spark than you could get with various other types of magnetos. The matter of ignition requires special consideration in a kerosene engine. The action of the spark points on the Webster Igniter Plug keeps these points from becoming encrusted with carbon and thereby avoids a condition so often met with in high tension ignition using a spark plug. Misfiring means wasted fuel and loss of power. The Webster Magneto furnishes a good hot spark even on the coldest days. This means that your engine will start easily even when the metal is cold and fuel vaporizes slowly.

Valves

The valves are located in the cylinder head where they can be easily reached for regrinding when necessary. The valve-in-the-head method of construction is particularly desirable in kerosene engines as it avoids valve pockets. This means that there is much less opportunity for carbon to accumulate and the valves can be more readily cooled. Each valve is carefully ground and fitted and the valve springs are set at the right tension to give the best results.

Flywheels

The flywheels are properly balanced and are of just the right size to conform with the speed and power of the engine. The flywheels on the 3-horse power size are frequently used for belt purposes to drive lighting plant generators.

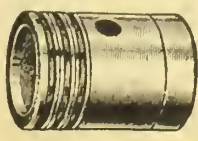
Let the Sattley Prove Its Worth Before You Pay for It

We have described these details of construction briefly but we want you to see the engine for yourself in order to judge of its quality. Sattley engines are built to last for many years. When you invest the price of an engine you will want assurance that the engine will continue to give you service long enough to earn the price you paid for it. Sattley engines may be depended upon to make full returns for every dollar invested in them.

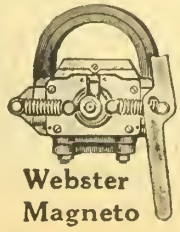
If you buy your engine on our Easy Payment plan you will have thirty days' time in which to try it before sending us any money. If you take advantage of our cash price you may send your remittance with the order or deposit the money in your local Bank. Either method will be satisfactory to us. In case you wish to have the money remain in the hands of your Banker during the trial of the engine, just give us the name of your Bank and the bill of lading will be sent there where you can secure it by depositing the purchase price of the engine. This money will remain in the hands of your Banker for thirty days. If by any chance the engine does not please you, let us know and we will send you the necessary shipping tag for returning it. When this bill of lading showing return shipment is presented to your Banker your money will be immediately refunded. This test will cost you nothing as we will reimburse you as well for all freight charges paid.



Carbon Steel Crank Shaft



Correctly Designed Semi-Steel, Pistons



Webster Magneto

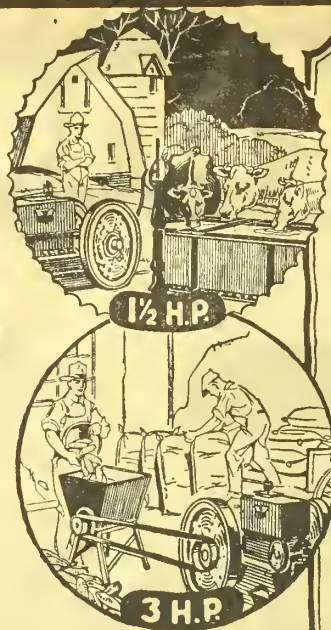
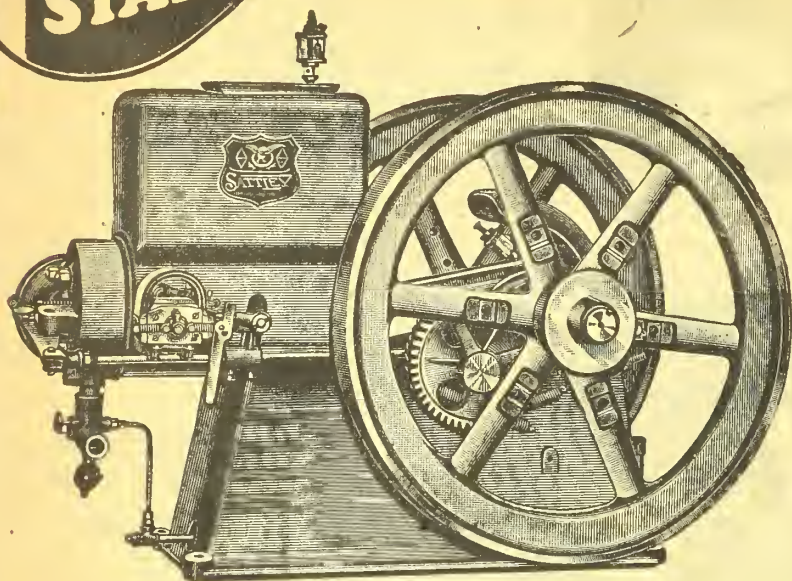


Connecting Rod I Beam Design Drop Forged Steel

**EASY TO
START**

Ward's Sattley

**Right Size
for the Work**



1 1/2 Horse Power The 1 1/2-horse power Sattley three-speed gasoline engine is designed especially for such work as running the pump jack, churn, cream separator, washing machine and grindstone. It will run the rotary pump or the governing line shaft. You can use a good advantage on a 5 1/2-in. burr. The speed can be reduced for the running machines and increased when more speed is required.

3 Horse Power The Sattley 3-horse power engine is the one you want for running your electric light generator. The wheels are made to carry a 2-in. belt; the speed will be just right. The engine will pull a 6-in. grinder or 22-in. blade. It will run the two-hole sheller, the pump on your pressure system, has the power needed for a small compressor and will operate the mill machine where a steady pull is required.

Sattley Three-Speed Gasoline Engines

THE patented Three-Speed Regulator is the simplest and most perfect speed changing device on the market. It is a marked improvement over the common type of governor, which can work accurately only at one speed. It is very simple and effective. Simply push the hand wheel in or pull it out, and while the engine

is running you can thus change the speed to meet the requirements of the job. A cream separator can be hooked up to the engine that has been running a grindstone by simply changing the speed. And it is all done without the use of extra pulleys, gears, shafting or other expensive equipment.

1 1/2 Horse Power Actual horse power at normal speed 1 1/2. Bore, 4 1/2 inches; Stroke, 6 inches; Ignition, Webster Magneto. Normal Speed, 475 revolutions per minute. Pulley, diameter, 4 inches; width, 4 inches. Crank shaft, diameter, 1 1/2 inches. Flywheel, diameter, 15 1/2 inches. Shipping weight, 245 pounds.
289 E 5042—1 1/2 horse power Sattley gasoline engine with Webster magneto.
Cash Price.....\$54.50
Easy Payment Price.....\$9.65

5 Horse Power 5 Actual Horse Power at normal speed. Bore, 5 1/2 inches. Stroke, 7 inches. Ignition, Webster Magneto. Normal Speed, 425 revolutions per minute. Pulley, diameter, 12 inches. Width, 6 inches. Flywheels, diameter, 28 inches; weight, each, 150 lbs. Crankshaft diameter, 2 inches. Shipping weight, about 925 pounds.
289 E 5062—5 Horse Power Sattley Gasoline Engine, with Webster Magneto and Three-Speed Regulator.
Cash Price.....\$129.00
Easy Payment Price.....\$42.50

3 Horse Power 3 Actual Horse Power at normal speed. Bore, 4 1/2 inches; Stroke, 6 inches; Ignition, Webster Magneto. Normal Speed, 475 revolutions per minute. Pulley, diameter, 8 inches; width, 4 inches. Shipping weight, 470 pounds.
289 E 5052—3 Horse Power Sattley Gasoline Engine with Webster Magneto and Three-Speed Regulator.
Cash Price.....\$91.75
Easy Payment Price.....\$9.95

7 Horse Power 7 Actual Horse Power, at normal speed. Bore, 6 1/2 inches. Stroke, 8 1/2 inches. Ignition, Webster Magneto. Normal Speed, 375 revolutions per minute. Pulley diameter, 16 inches; width, 6 inches. Flywheels, diameter, 34 inches; weight, each, 230 pounds. Crankshaft diameter, 2 1/2 inches. Shipping weight, about 1,300 pounds.
289 E 5066—7 Horse Power Sattley Gasoline Engine, with Webster Magneto and Three-Speed Regulator.
Cash Price.....\$175.00
Easy Payment Price.....\$193.50

Shipped from Factory in Springfield, Illinois.

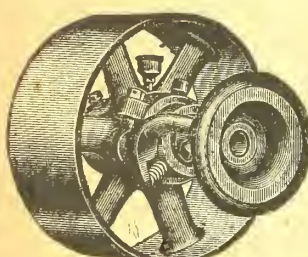
Repair Parts

Renewal parts are always carried in stock. A complete set of instructions and repair parts list shipped with each engine.

We are always ready to aid you in selecting the engine best suited to your needs. Give us an idea as to the work you wish done and we will recommend the engine we believe you should have.

Our Guarantee will protect you fully. Sattley engines must give complete satisfaction in order to remain sold.

Engine and Gear See Page 7



Friction Clutch Pulleys for Engines

Our hug grip clutch pulley with contracting band is constructed of only 11 parts, simple to operate and adjust. The wide friction band worked by a single toggle lever secures positive action and insures long life. The entire adjustment is made by tightening or loosening one nut. The hand wheel is a one-piece casting without joints or lugs, and cannot injure operators' hands or fingers. The extra wide

pulley bearing fitted with grease cup, and the simplicity of construction and adjustment makes this one of the best friction clutch pulleys on the market.

We furnish plain engine pulleys regularly with all Sattley Engines but a Friction Clutch Pulley performs better, enabling the operator to start or stop the engine independent of each other, saving wear and tear on both.

For Belting and Transmission See Page 822.

287 E 5280 These sizes are bored for Sattley Engine Crank Shafts and are the same size as the regular plain pulley listed with each size engine. The prices quoted are to be used only when Friction Clutch Pulleys are ordered and shipped in place of the regular plain pulley with new Sattley Engines. Shipped with your engines.

| Diam. & Face In. | Sattley Eng. H. P. | Bore In. | Ship. Wt. lbs. | Price |
|------------------|--------------------|----------|----------------|--------|
| 8x4 | 3 | 1 1/2 | 45 | \$1.50 |
| 12x6 | 5 | 2 | 60 | \$3.80 |
| 16x6 | 7 | 2 1/2 | 80 | \$7.90 |

387 E 5281 If you already have an engine and want to equip it with a Friction Clutch Pulley, make your selection from the following list being careful to state diameter and width of face, diameter and length of crank shaft extension, the H. P. and speed of engine. We require 10 to 15 days to fill orders for made-to-order pulleys.

| Diam. & Face In. | Max. H. P. Clutch Cap'cy | Largest Bore In. | Ship. Wt. lbs. | Price | Diam. & Face In. | Max. H. P. Clutch Cap'cy | Largest Bore In. | Ship. Wt. lbs. | Price |
|------------------|--------------------------|------------------|----------------|---------|------------------|--------------------------|------------------|----------------|---------|
| 8x4 | 3 | 1 1/2 | 45 | \$16.40 | 20x8 | 12 | 2 1/2 | 145 | \$32.50 |
| 12x6 | 6 | 2 1/2 | 50 | 23.00 | 22x8 | 12 | 2 3/4 | 155 | \$34.50 |
| 14x6 | 6 | 2 1/2 | 70 | 23.75 | 24x8 | 16 | 3 | 175 | \$39.95 |
| 16x6 | 8 | 2 1/2 | 80 | 27.95 | | | | | |

1 1/2 H. P. Engine

On Wheelbarrow Truck

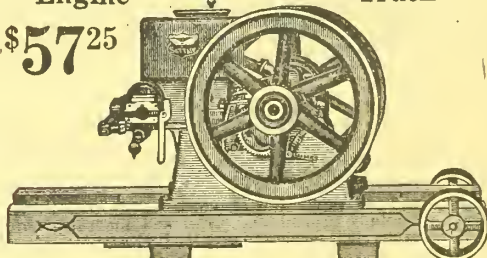
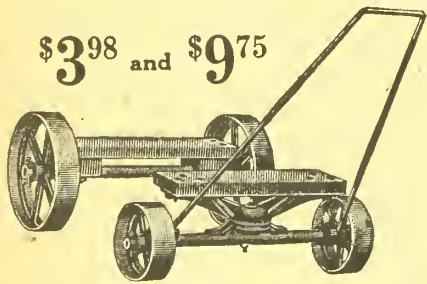
\$57.25

Hand Portable Engine

\$99.70

Climax Engine Truck

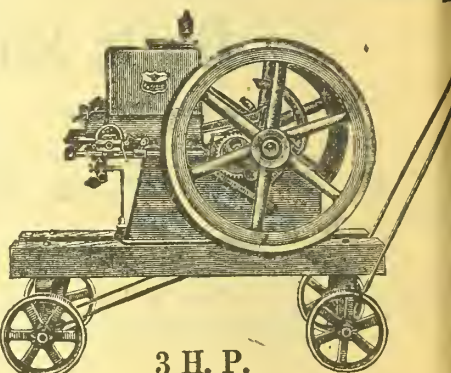
\$3.98 and \$9.75



Steel handle truck has wood cross-beams each 1 1/2 x 3 1/2 x 16 1/2 inches. Engine base or box bolted to beams acts as frame. Wheels 9 inches diameter by 1 1/2-inch face. Tubular axles 1 inch diameter, length 26 inches. Ship. wt., 47 lbs.
187 E 5326—Price.....\$3.98
Shipped from Chicago Stock.

287 E 5328—Heavy Truck for engines up to 1,000 lbs. Length, 5 feet. Width, outside of beams, 22 in. Diameter of front wheels, 9 in. Diameter rear wheels, 14 in. Width of tires, 3 in. Ship. wt., 118 lbs.
Price.....\$9.75
Shipped from Factory, Cent. Ill.

This is a 1 1/2-H. P. Sattley Gasoline Engine, mounted on wood skids, with a pair of wheels arranged to form a wheelbarrow truck. When you set it down the wheels clear the ground and engine rests on the skids, making a solid foundation. Holes bored and nuts furnished to mount engine easily, when received.
289 E 5046—1 1/2-H. P. Sattley Gasoline Engine, with Webster Magneto, mounted on two-wheel truck. Ship. wt., 265 lbs. Cash Easy Payments
Price.....\$57.25 \$62.90
289 E 5049—Wheelbarrow Truck, only. Ship. wt., 20 lbs. Price.....\$2.75 \$3.25
289 E 5043—1 1/2 H. P. Engine mounted on 4 wheel steel truck weight 295 pounds. \$60.00 \$65.90
289 E 5051—4 wheel steel truck only. Weight 50 pounds. \$5.50 \$6.75
Shipped from Factory in Springfield, Illinois.



The wood beam truck provides a firm support for the engine and makes an easy means of moving it from place to place. The usefulness of your engine will be greatly increased by having it on a truck. The wheels are sufficiently high to make moving an easy matter. The front trucks may be swung around to brace the engine while it is running.

The truck has 9 inch diameter front and rear wheels with 2 inch tires, pipe axles, 1 inch diameter. Wood beams, 42x3 1/2 x 3 1/2 inches with holes bored and bolted for mounting.

Put this Sattley Outfit to work on your farm — you worry will then be over.
289 E 5059—3-H. P. Gasoline Engine. Mounted on wood beam truck. Shipping weight, about 540 pounds.

| | Cash | Easy Payments |
|--|----------|---------------|
| Price..... | \$99.70 | \$108.75 |
| 289 E 5162 —3-H. P. Throttling Governor Kerosene Engine. Mounted on wood beam truck. Shipping weight, about 590 pounds. | | |
| Price..... | \$102.95 | \$113.50 |
| 289 E 5035 —Wood Beam Truck only. Wt., 75 lbs. | | |
| Price..... | \$7.95 | \$8.75 |

Shipped from Factory in Springfield, Illinois.

Engines for Every Job

EASY TO RUN

Engine to Use You Want to Do

Horse Power The 5 horse-power Sattley engine is a popular size on the farm. It is big enough for most jobs and not too big for the light ones. It can be used for driving your line shaft and will pull an 8-in. corn on cob crusher at full capacity. Mount it on a truck and use it for cutting wood. It will drive a 26-in. saw and cut cordwood or poles up to 8 in. diameter.

Horse Power The 7 horse-power Sattley engine is the one you need for a 12-in. burr mill or 10 in. on cob crusher. It will pull a 30 in. wood saw blade or 12-in. silage cutter. Just the right size to use on a hay press.

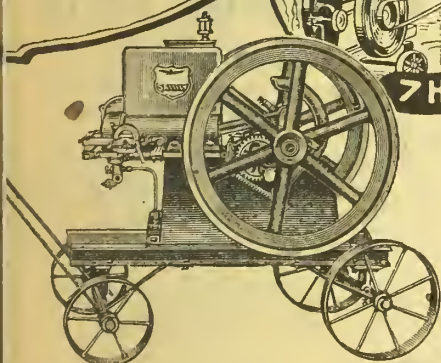
Horse Power Will handle a 40-inch saw, drive the heavier baling presses, 4-hole husker and other, 14-inch silage cutter or small threshing machines. Will operate a small corn crusher or 4-hole corn sheller. Bore, 4 inches. Stroke, 12 inches. Webster magneto. Normal Speed, 340 revolutions per minute. Pulley, 20x8. Flywheels, each at 325 pounds. Crankshaft, 2 1/4 inches. Shipping weight, about 2025 pounds.

E5168—9 Horse Power Sattley Throttling Governor Kerosene Engine. Price..... \$239.50 with order. Price..... 262.25 with payment. Price.....

Easy Payments

All Sattley Engines and outfits shown on these two pages and the two preceding pages are sold on our Easy Payment Plan. No Money Down, 30 days' Free Trial, then if satisfied with purchase, send one-tenth of cash price and one-tenth of succeeding 30 days until full purchase price is paid.

Order Blank on Page 870



5 H. P. Hand Portable Outfit

\$144⁶⁵

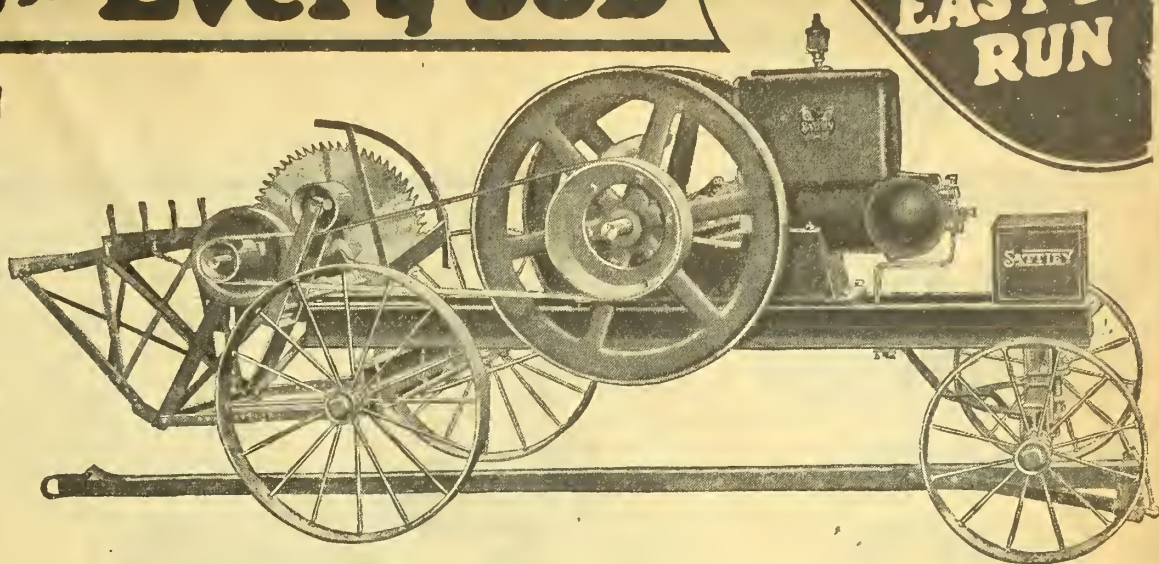
The wheels are large and the outfit can be moved over uneven ground without great effort. The front truck can be swung around and set cross wise to help brace the engine when running. Four bolts fasten the engine to the truck.

5 H. P. Sattley Engines mounted on a Steel Channel Beam Truck with "I" beam braced axles make one of the handiest power outfits for the farm. Both kerosene and gasoline engines are furnished on this truck.

189 E 5038—5 H. P. Sattley Gasoline Engine with 14-inch Pulley, Webster Magneto and Three-Speed Governor. Mounted on steel truck. Shipping wt., about 1090 pounds. Price, Cash..... \$144.65 Easy Payments..... 160.00

189 E 5089—5 H. P. Kerosene Engine with 14-inch Pulley, Throttling Governor, and Webster Magneto. Mounted on steel truck. Shipping weight, about 1090 pounds. Price, Cash..... \$155.40 Easy Payments..... 172.00

189 E 5037—Steel Truck only. Wt., 150 lbs. Price, Cash..... \$15.65 Easy Payments..... 17.50



Sattley Power Saw Rig Outfit

THE saw frame and table of the Sattley Saw Outfit can be removed from the truck in a few minutes, then you have a complete portable engine. The 5 H. P. engines with single base, are mounted direct on the truck beams, but the 7 H. P. engines are mounted with the engine bed directly bolted to the beams, the 7 H. P. sub-base removed, with the 7 H. P. fuel tank fastened by steel strap between the truck beams so that the whole engine and flywheels are lowered to avoid top-heaviness on the road when transported. The truck has heavy 5-inch channel steel beams 8 feet long with 1 1/2 x 62-inch front and rear round solid steel axles strengthened by 3-inch I beams 4 1/2 inches long bolted above the axles with braces from the

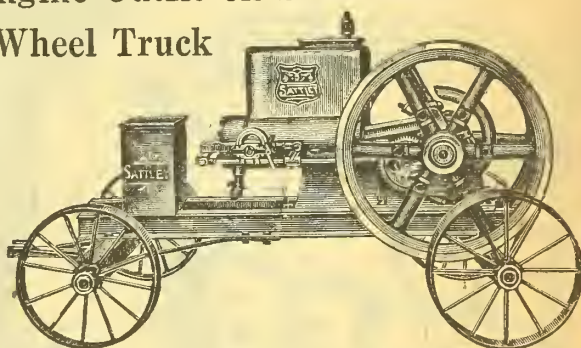
beams to rear axle and fifth wheel. Front wheels are 24-inch diameter with 4-inch grooved tires 3/4-inch thickness. Rear wheels are 32-inch diameter with 4-inch grooved tires, 3/4-inch thickness. The tilting table saw frame has all steel frame and braces with standard 60-pound balance wheel and shaft for saws with 1 1/2-inch arbor hole. Standard steel cordwood cutoff saw furnished, filed and set ready for use. 26-inch diameter with 5 H. P. Outfits, 30-inch diameter with 7 H. P. Outfits. Complete outfit includes truck and engine with Webster magneto, tool and seat box, saw frame, belt, saw and standard 2-horse pole. (Neck yoke, single and doubletree not furnished).

| Article Number | Description | Shipping Weight | Easy Payment Price | Cash Price |
|----------------|---|-----------------|--------------------|------------|
| 289 E 5080 | Saw Rig Complete with 5 H. P. Gasoline Eng. | 1670 lbs. | \$247.00 | \$224.00 |
| 289 E 5081 | Saw Rig Complete with 5 H. P. Kerosene Eng. | 1680 lbs. | 259.25 | 234.75 |
| 289 E 5084 | Saw Rig Complete with 7 H. P. Gasoline Eng. | 1885 lbs. | 297.50 | 270.00 |
| 289 E 5085 | Saw Rig Complete with 7 H. P. Kerosene Eng. | 1900 lbs. | 313.85 | 285.00 |

Shipped only from Factory at Jackson, Michigan.

Mounted Engine Outfit on Steel Beam Steel Wheel Truck

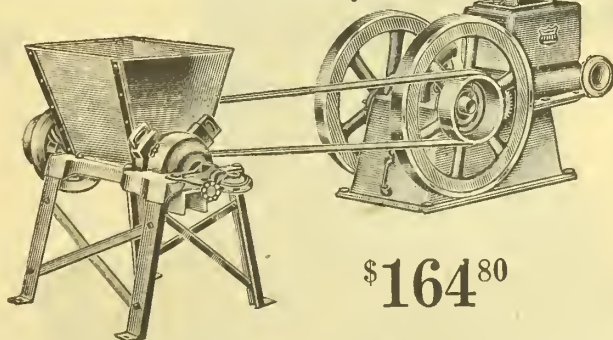
\$181⁵⁰ Up



| Article Number | Description | Ship. Wt. | Easy Paym't Price | Cash Price |
|----------------|--|-----------|-------------------|------------|
| 289 E 5070 | 5 H.P. Gasoline Engine on Horse Truck | 1460 lbs. | \$199.95 | \$181.50 |
| 289 E 5071 | 5 H.P. Kerosene Engine on Horse Truck | 1470 lbs. | 211.45 | 192.25 |
| 289 E 5074 | 7 H.P. Gasoline Engine on Horse Truck | 1675 lbs. | 250.00 | 227.50 |
| 289 E 5075 | 7 H.P. Kerosene Engine on Horse Truck | 1700 lbs. | 267.25 | 242.50 |
| 289 E 5076 | Horse Truck only with pole for 5 or 7 H.P. engines. (State H. P. and serial number of engine and center to center distances in width and length of 5 H. P. base bolt holes or 7 H. P. bed bolt holes.) | 700 lbs. | 70.95 | 65.00 |

Shipped only from Factory at Jackson, Michigan.

Grind Your Own Feed and Meal with a Sattley Outfit



\$164⁸⁰

This outfit consists of an 8-inch Climax Corn-On-Cob Crusher and 5 H. P. Sattley Three-Speed Gasoline Engine with Magneto or 5 H. P. Sattley Throttling Governor Kerosene Engine with Webster Magneto and 30 feet of 5-inch 4-ply rubber belting. The grinder is built strongly of steel and iron. It will grind corn on the cob, shelled corn, kafir corn, milo maize, wheat, oats, barley, rye and other grain, separately or mixed. Capacities vary from 25 bushels to 35 bushels per hour. Balance wheel and two sets of burrs included. Ship. w.t., mill, 225 lbs. 5 H. P. engine, 925 lbs.

289 E 5126—5 H. P. Corn-On-Cob Crusher outfit with 5 H. P. Sattley Three-Speed Gasoline Engine with Webster Magneto, Mill and Belt Complete. Price, Cash..... \$164.80 Easy Payments..... \$181.70

289 E 5127—5 H. P. Corn-On-Cob Crusher, outfit with 5 H. P. Sattley Throttling Governor Kerosene Engine with Webster Magneto. Mill and Belt Complete. Price..... \$175.55 \$193.70 Engine shipped from nearest shipping point, Corn-On-Cob Crusher from Factory in Iowa.

Pumping Water is Easy with This Outfit

Saves You Time and Energy

\$59⁸⁵ Outfit Complete



The Sattley Pumping Outfit includes a 1 1/2 H. P. Sattley Gasoline Engine with Webster Magneto, pump jack and 16 feet of 2-inch, 2-ply belting. No pump is furnished.

The outfit can be used with almost any type of pump standard having a windmill top.

289 E 5054—Sattley Pumping Outfit with 1 1/2 H. P. Gasoline Engine. Total ship. wt., 290 lbs. Price, Cash..... \$59.85 Easy Payments..... \$65.75

Shipped from nearest Warehouse.

Ward's Sattley Cream Separators

**Easy to
Run
Easy to
Clean
Skims to
a Trace**

\$69⁷⁵
Up

on
Easy Payments
**No Money
Down**

30 Days Free Tri

EVERY superior skimming or sanitizing feature that should be in a Cream Separator, you will find in this improved Sattley. Built by experts to meet requirements for close skimming, easy operation and long life—it is as near perfect mechanically as skilled workmen can make it.

Easy Payment Plan

OUR Easy Payment Plan places the Sattley Cream Separator within easy reach of anyone in need of a Separator. Terms are so easy that you can make the Separator pay itself out of the extra profit you will make using this smooth running, close skimming machine.

You do not have to send any money with your order for a Sattley Cream Separator. Just fill out the order blank for Separators on page 870 of this catalog, mail it to us and we will promptly ship you a Separator so that you will have time to inspect and fully appreciate the fine materials and skilled workmanship, the simple construction and smooth operation of the Sattley, and have the genuine satisfaction of using it, before you pay one cent. When thoroughly satisfied, send us your first payment, one-tenth of the purchase price and the balance in nine equal payments 30 days apart.



Ward's Sattley Separator Brings You

The Frame and Base is Built
Extra Heavy

The Base is Square
and Stays Solidly when Bolted to
the Floor

For Close Skimming

Prices

No. 15—Skims 180 Quarts of Milk per Hour

75
LB. SIZE

Universal size for small dairies, handling the milk of from 1 to 5 cows. This separator will give the man who has a small dairy the best results possible to secure.
Speed of crank, 60 revolutions per minute; Bowl revolves only 6,000 to 7,200 R. P. M.
289 E 4615—375-Pound Capacity or about 180 quarts of milk per hour. Sattley Separator No. 15. Ship. wt., 160 lbs.

Cash with order price..... **\$69.75** Easy payment price..... **\$75.90**

No. 17—Skims 250 Quarts of Milk per Hour

00
LB. SIZE

Our most popular size. Very light running. Can be handled easily by anyone. A good capacity separator for dairies of from 1 to 10 cows.
Speed of crank, 60 revolutions per minute; Bowl revolves only 6,000 to 7,200 R. P. M.
289 E 4617—500-Pound Capacity, or about 250 quarts of milk per hour. Sattley Separator No. 17. Ship. wt., 170 lbs.

Cash with order price..... **\$77.50** Easy payment price..... **\$84.95**

No. 19—Skims 375 Quarts of Milk per Hour

750
LB. SIZE

Recommended for dairies of from 4 to 20 cows. Skims much faster than the smaller size, turns easily. A very popular size for hand operation or for power operation with power attachment **289E4658**—described on page 863.
Speed of crank, 55 revolutions per minute; Bowl revolves only 6,000 to 7,200 R. P. M.
289 E 4619—750-Pound Capacity, or about 375 quarts of milk per hour. Sattley Separator No. 19. Ship. wt., 190 lbs.

Cash with order price..... **\$86.85** Easy payment price..... **\$94.75**

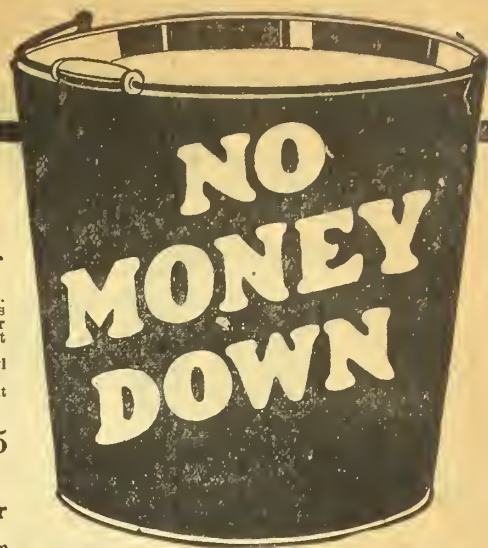
No. 21—Skims 475 Quarts of Milk per Hour

950
LB. SIZE

The ideal size machine for large dairies of from 5 to 30 cows. It is usually operated by power with power attachment **289 E 4658** shown on page 863, although it can be operated by hand.
Speed of crank, 50 revolutions per minute; Bowl revolves only 6,000 to 7,200 R. P. M.
289 E 4621—950-Pound Capacity, or about 475 quarts of milk per hour. Sattley Separator No. 21. Ship. wt., 210 lbs.

Cash with order price..... **\$96.00** Easy payment price..... **\$104.50**

Shipped direct from Factory in Springfield, Illinois



Let the Sattley Prove Its Worth Before You Have to Pay a Penny of the Purchase Price

Quality at Economy Price

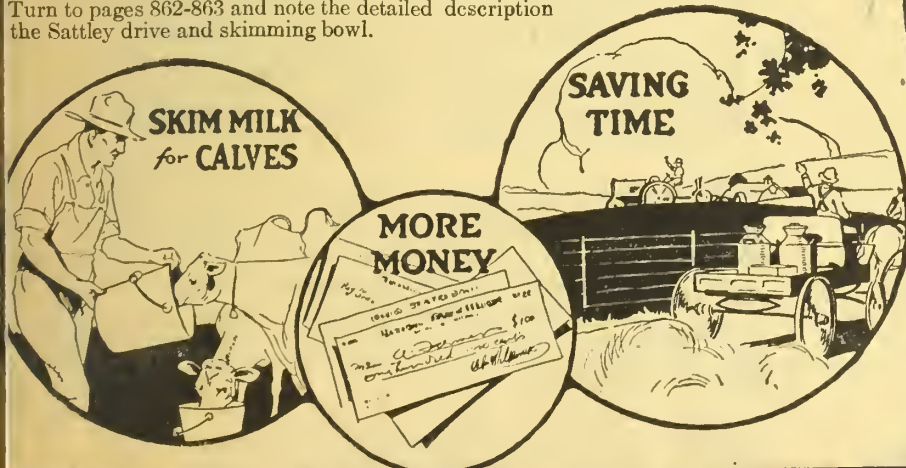
THE Cream Separator is no longer an experiment or a luxury—it is an absolute necessity on every farm having two cows or more. The question you must decide, however, is what make of Separator to buy. You know it is to your advantage to buy the best—you also want to get it at a reasonable price. The Sattley Cream Separator solves these problems for you in a Satisfactory and Economical way—for the Sattley is guaranteed to skim as close and last as long as the best separator made, regardless of price, and is sold to you at a figure that is remarkably low for the exceptionally high quality. Read the detailed description on pages 862-863 and you too will realize that there is no other Separator made—high priced—cheap—or medium priced that offers to the farmer as much Separator Value for every dollar invested as does the Sattley!

It is built so you can easily understand and operate it. No complicated or unnecessary parts, to get out of order. A boy or girl can run the Sattley Separator just as efficiently as an experienced farmer. The simple directions sent with each machine are easy to follow. There are thousands of satisfied Sattley Separator users, some of which may be friends of yours. Ask your neighbor about the Sattley, you may have one or write us and we will send you the name of a Sattley dealer in your district that will tell you what he thinks of the Sattley separator.

NOTE: the detailed description of the mechanism of the Sattley as illustrated below.

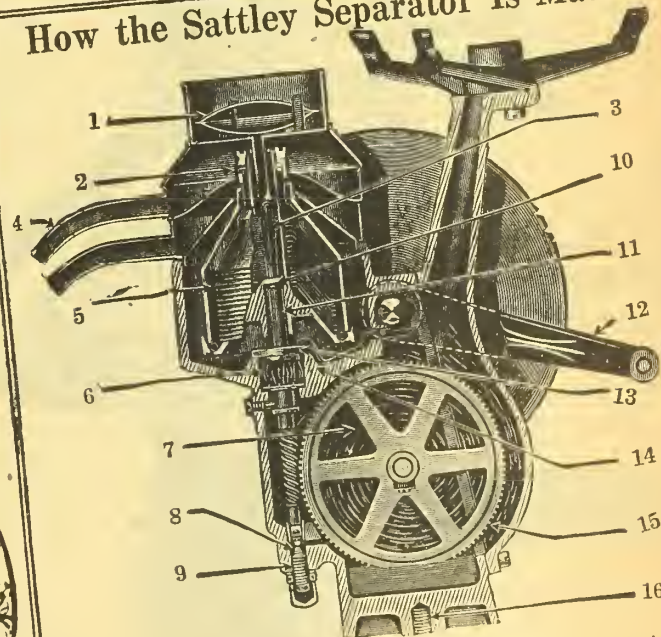
Know the Separator You Buy

In deciding upon the merits of a Cream Separator there are three important points to keep in mind above all others: the Frame, the Drive, and the Skimming Device. A Cream Separator frame is called upon to support machinery which runs at the highest speed attainable and it must withstand considerable rack and strain. Should the base of the frame be lightly built or perched on a high or narrow base with the bulk of the weight above the center, its life is necessarily short. A spindly, top-heavy or lightly built frame or base cannot be kept from being strained out of plumb by the fast whirling weight. To skim milk properly, the bowl must at all times be level. Everyone experienced with Cream Separators knows this to be true and that is why the Sattley Separator is built with a heavy square base. It stays solidly on the floor and does not pull and tug on the lag screws until they become loose and cause the whole machine to wobble like the light base Separator. Turn to pages 862-863 and note the detailed description of the Sattley drive and skimming bowl.



Bigger Cream Profits with Less Work

How the Sattley Separator Is Made



1. Reversible Float with Smooth Surface.
2. Easily Adjustable Cream Screw.
3. Patented Distributing Blades.
4. Extra Heavy Tinware.
5. Only 30 to 33 Sanitary Discs.
6. Simple Spring Bearing. Durable and Easy to Adjust.
7. Splash Oiling System, Oiling All Gears, Bearings and Shafts.
8. Hardened Steel Points, on which Spindle Revolves.
9. Adjustable Screw for Raising or Lowering Bowl.
10. Center-Balanced Bowl.
11. Detachable Bowl Spindle.
12. Short Crank, Easily Turned.
13. Bearing for Spindle, Oiled by Splash Oiling System.
14. Bearing Case, Protecting Gears from Water and Milk.
15. Bronze Helical Tooth Worm Gear.
16. Screw Holding Frame, Drip Shelf and Base Together.

What You Get

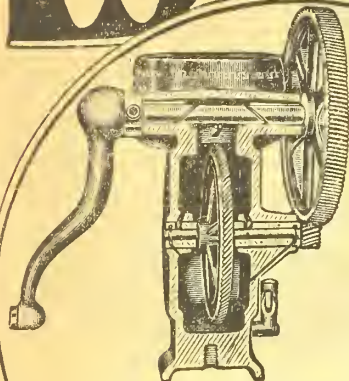
When You

Simplicity—

SIMPLICITY in construction is the key note of Sattley Separator success with farmers and dairy throughout the United States. There are no unnecessary parts in the Sattley to clog the mechanism, make it hard to clean and operate. Note the superior features illustrated on this and following pages; they show you the Self-oiling Splash System, Patented Tubular Shafts, Self-balancing Bowl and other features of the Sattley Separator that are the result of many years of planning, designing and perfecting features that mean long life, satisfactory service, skimming to a trace and easy running.

The Skimming Bowl is the heart of the Cream Separator. All other parts are solely for the purpose of making it possible to turn the bowl rapidly in order that it may perform its work properly. Our separator engineers, after spending years in designing and experimenting, have perfected the Sattley Bowl, that for close skimming qualities cannot be excelled by any separator on the market. The Bowl Center or tubular shaft is made from a solid piece of steel and takes 42 separate machine operations to make it. 3 wings are scientifically placed inside the bowl center, which distributes all the milk in a thin stratum over all the discs, not over only a few, making each do its maximum work, thereby separating more thoroughly and getting practically all the butter fat from the milk, and does it in two-thirds less time than other separators on the market. That is the reason why the Sattley Cream Separator is well known for its close skimming.

Self-Oiling Splash System



No oil cups to fill or adjust. One supply of lubricant is sufficient for three to four months.

This system absolutely does away with any chance of oil coming in contact with the milk or dripping on the floor; prevents hot bearings; saves time, money and trouble.

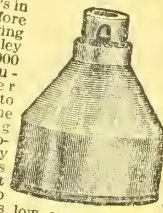
Superior Neck Bearing



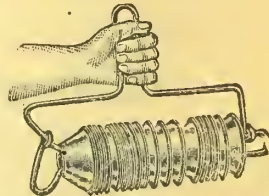
The new top bearing is the simplest and most satisfactory ever devised for the purpose, possessing every advantage and none of the disadvantages of all other top bearings. The bearings are special die castings accurate to 10/1000 of an inch, are made of an anti-friction metal that is far superior to a babbitt bearing and is almost frictionless, which means long life.

How the Sattley is Different and Why it is Better

The Sattley center balanced Bowl is supported by a spindle balanced between top and bottom avoiding top-heaviness and wobbling. Spindle is detached from machine, therefore danger of springing is removed. Sattley bowl runs only 6000 to 7000 revolutions per minute to get same skimming effect produced by other bowls running at 9000 to 15000. This low speed bowl means less wear and longer life. Spindle is made of special alloy steel accurately ground to 4/1000 of an inch, revolves on specially hardened steel points, which are easily replaced at small cost after years of service.



Easy to Keep Clean and Sanitary

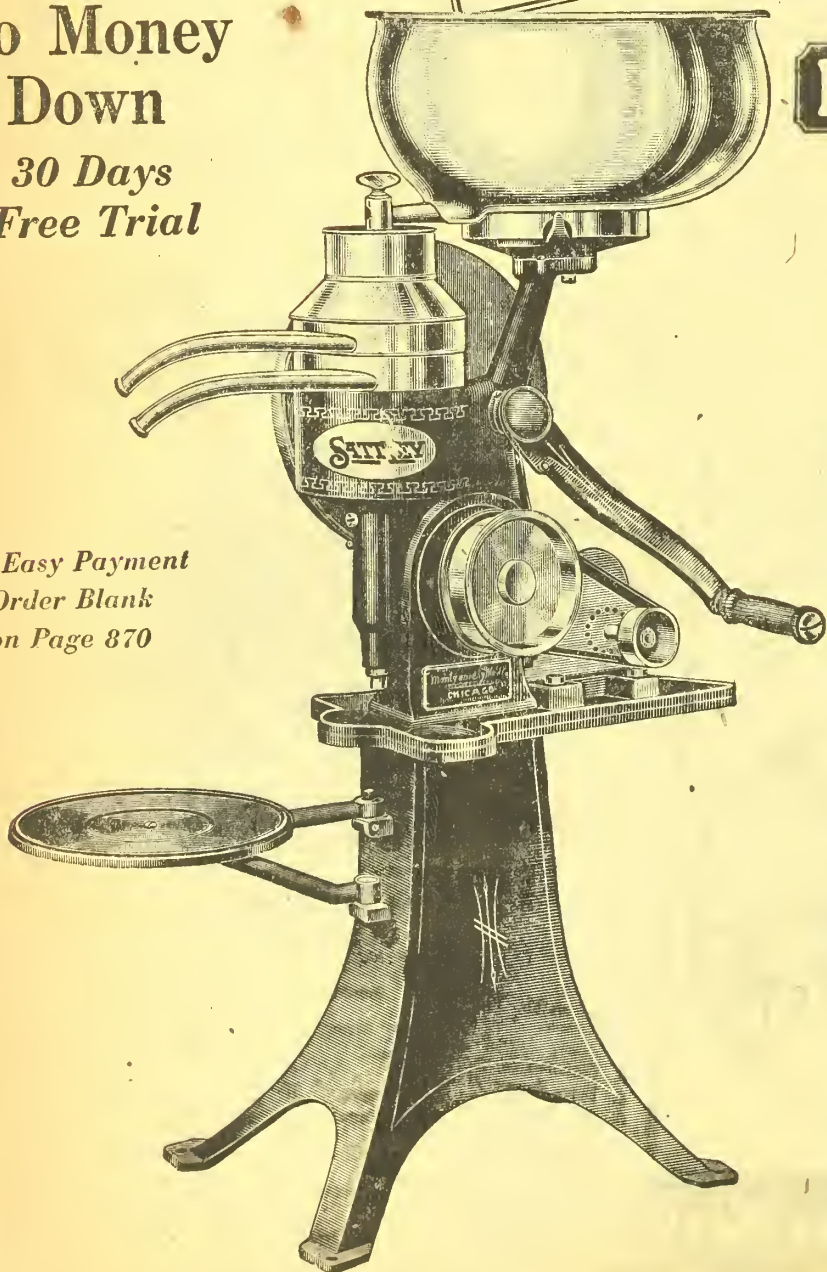


This feature will appeal to every woman who uses a Separator—and to every man also. Note the simple way in which skimming discs are removed from bowl and shaft and how easily they are washed and sterilized. Takes only two to four minutes to give them a thorough scalding and dry them. Each disc is pressed from one piece of steel, is heavily tinned and electrically welded.

No Money Down

30 Days Free Trial

See Easy Payment
Order Blank
on Page 870



Electric Drive Separator

\$108.50 Up Complete with Motor

Your Farm Lighting Outfit Will Run This Separator

SAVE time and labor in running your Cream Separator by electricity. Your farm lighting outfit or any electrical power will run it. Just attach the electric cord to your light socket the same as you would for an electric washing machine or other household appliance, nothing complicated about it. Electric drive insures a constant uniform speed of the bowl with the result that assure you the closest possible skimming.

The same high quality materials that are in the Sattley hand power Separator are to be found in the Electric Drive.

The Sattley Electric Drive is so arranged that the hand crank remains in place and it may be turned by hand if so desired.

Sattley Separators can be furnished in all sizes with Electric Drive.

Mention in your order whether you have direct or alternating current and voltage. If alternating whether single, two or three phase and number of cycles. Your electric company will furnish you with this information.

For Farm Power Lighting Outfits

32-Volt Direct Current

Sattley Electric Drive Separator complete, with 32-volt direct current motor for use with battery lighting plant, with knife switch, fuse plugs and 10 feet of insulated wire. **State voltage and kind of current.**

| | Easy Payment Price | Complete Price |
|---|--------------------|----------------|
| 289 E 4630—Sattley Electric Separator, 375-pound capacity.. | \$118.50 | \$108.50 |
| 289 E 4631—Sattley Electric Separator, 500-pound capacity.. | 128.50 | 118.50 |
| 289 E 4632—Sattley Electric Separator, 750-pound capacity.. | 141.25 | 128.50 |
| 289 E 4633—Sattley Electric Separator, 950-pound capacity.. | 152.50 | 138.50 |

For Electric Company Power

110 or 220-Volt Alternating Current

Sattley Electric Drive Separator, complete, with 110 or 220-volt, 60-cycle alternating current motor, 10 feet of cord with plug socket. **State voltage and nature of current.**

| | Easy Payment Price | Complete Price |
|---|--------------------|----------------|
| 289 E 4640—Sattley Electric Separator, 375-pound capacity.. | \$125.75 | \$115.75 |
| 289 E 4641—Sattley Electric Separator, 500-pound capacity.. | 136.50 | 126.50 |
| 289 E 4642—Sattley Electric Separator, 750-pound capacity.. | 149.50 | 139.50 |
| 289 E 4643—Sattley Electric Separator, 950-pound capacity.. | 159.50 | 149.50 |

Average shipping weights: 375 pounds capacity, 220 pounds; 500 pounds capacity, 230 pounds; 750 pounds capacity, 250 pounds; 950 pounds capacity, 270 pounds.

Shipped from Factory at Springfield, Illinois.

Buy a Ward Sattley Separator

Economical in Operation

HERE are many reasons why the Sattley Separator makes friends on the farm. It is low in price for the exceptionally high quality, economical in day to day operation and represents increased fits in cream yield. It is easy to operate, a child can run it. Accuracy of bearings, improved rollers, self-balancing bowl, self-oiling system—all these mean easiest running. Because it is self-oiling, no oil cups or lubricators are necessary. Every bearing is perfectly oiled every time the handle is operated by the positive, constant circulation of fresh oil, supplied by the Sattley Automatic Oil System. Because it is the right height—easy to fill without spilling milk and less tiresome for women to operate than most separators on the market. Because it has a low speed bowl, half the speed of others, does not break up the butter-fat, yet separates it perfectly. Finally, because the drudgery of unseparating disappears when the Sattley is used. You, too, will say there's a world of satisfaction in using the Sattley. TRY IT.

Quick Service on Renewals and Repairs

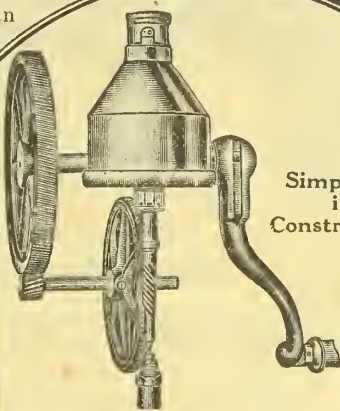
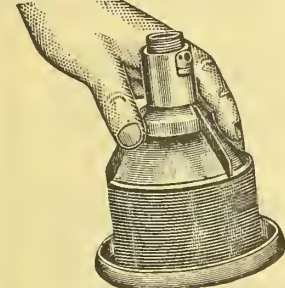
Local dealers often say you should buy a separator of them because if you have any trouble they will help you out. Separators are past the experimental stage and the Sattley is simple in construction a woman or boy can easily operate it and keep it in perfect condition. No shrewd and economical buyer will pay a fancy price for an inferior service that is seldom ever used.

Repairs Always: Sattley Separators are made in our own factory. You will always be able to get repairs. A stock of every part is always carried ready for immediate shipment from Chicago, Kansas City, Portland, Ore., Fort Worth and in our factory at Springfield, Ill.

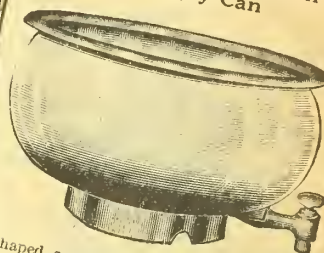
EASY TO RUN EASY TO CLEAN SKIMS TO A TRACE



Profit Making Skimming Device



Sanitary Anti-Splash Supply Can



Easy to Run - Easy to Buy

The Following Ways of Ordering Are for Your Convenience:

Full Purchase Price with Your Order

EARLY all our customers send cash with their order, if you wish to order on this plan, send a Post Office or Express Money Order, Bank Draft or Personal Check, for separator you desire and we will ship once.

When it arrives at your station you then pay the freight charges, take the separator home and use it for 30 days before deciding to keep it. Then should you decide not to keep the Separator, write us for return shipping directions. We will gladly return your money and the freight charges you d.

Pay After 30 Days' Trial

Should you want to take advantage of our liberal 30-Day Free Trial to see and test the Sattley before paying for it, just give the name of your Home Banker or ask him to give you a letter saying that he knows you are reliable, which he unquestionably will gladly do. Then send this letter with your order.

After you receive the Separator try it for 30 days and after assuring yourself that the Sattley is perfectly satisfactory send us payment in full at the end of your 30-day trial.

Our Easy Payment Plan—No Money Down

If it is more convenient for you to pay in monthly installments, we will ship the Sattley to you on easy monthly payments, so small you won't feel the cost at all. No deposit is necessary at the time of ordering and you pay the full purchase price in easy monthly payments, beginning 30 days after you have received the Separator, until you have paid in full. You use the Sattley while paying for it. You give it a chance to earn its own cost and more before you pay.

Renewal parts are often needed right in the busy season, a time when prompt shipment is of vital importance. At such a time users of Montgomery Ward & Co.'s machinery will appreciate the protection of our Renewal Service.

You can avail yourself of this protection now by buying your machinery here, where you can always get renewal parts promptly.

When ordering parts give name and article number and date of purchase of the machine and part number of the piece required as it appears cast on the original.

Repairs for Other Machines

Whenever renewal parts are required for other articles of machinery shown in this Catalog which we do not manufacture, we have arranged for an ample stock of renewal parts so that prompt shipment of such parts is assured.

This applies to such machinery as: Windmills, Pumps, Pump Jacks, Concrete Mixing Machinery, Feed Cutters, Corn Shellers, Grinders, Scales, Spray Pumps, Stump Pullers, etc.

Use Power Attachment for Sattley Separators

\$13.50 Cash Price

Power Attachment Complete

With the extended use of power machinery on the farm and in the dairy has come a gradual demand for a power attachment by owners who have run their machines by hand. Primarily a hand-operated machine, the 1920 Sattley Cream Separator, by means of a simple attachment, becomes a power-driven unit.

It is important that the transmission of power to a hand separator be uniform and regular, entirely free from shock or jerky motion.

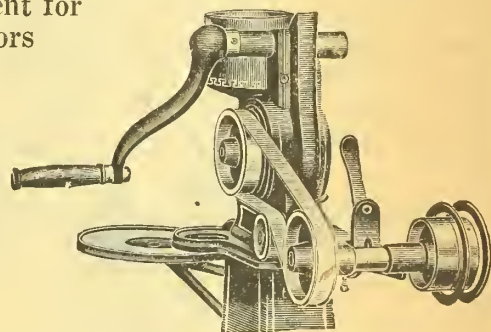
The new Sattley Power Drive is one of the simplest and best means of power driving a hand separator yet devised. It is designed for and is used exclusively on Sattley Separators. Especially recommended for power drive for No. 21 Sattley Separator.

The power is transmitted by belt to the tight and loose pulley set provided with a belt shifter, thence from the short countershaft pulley by an endless belt to the pulley on the special extended lower or worm wheel shaft of the Separator. The novel feature is the idler pulley belt tightener which automatically absorbs by a coiled spring all shocks resulting from irregularities of speed which occur with practically every kind of power. Outfit consists of power drive frame with set screws, with tight and loose pulleys, belt shifter, idler pulley and spring, driven pulley, short leather belt as shown, extended pinion shaft for worm gear longer than regular so as to extend to take pulley. The crank is left on so that it can be run by hand or power as desired.

It is advisable to have the Power attachment built into the Sattley Separator at the factory. If you have a Sattley on your farm and want the power attachment it will be necessary for you to ship your Separator to the factory for this work.

239 E 4658—Power Attachment for Sattley Separator. (State size, number, bowl number, and capacity of separator). Shipping Price **\$14.75** Cash Price **\$13.50** weight, 30 pounds.

Shipped from our Factory at Springfield, Ill., with extended pinion shaft, or built into separators which are shipped from our Factory at Springfield, Illinois.



Friction Clutch Separator Pulley

Designed to operate cream separators by power. Should be used in connections with a governor pulley when belting up to engine power.

Diameter, 12 inches; face, 2 1/4 inches. Number 387 E 4670 pulleys for 1/2-inch shaft and Number 387 E 4672 for 3/4 and 1-inch shafts are regular stock. Other sizes require 5 days' delay to make to order.

When ordering be sure to state size of crank shaft of separator; also name, serial number or bowl number, size, number, capacity and name of separator and date of purchase.

387 E 4670—For Golden Harvest Separators sold before January 1, 1917, or for any separators with low tank at side. (State bore.) **\$4.65**

387 E 4672—With extended Sleeve Hub for Sattley Golden Harvest or other separators with high crank in same position. (State bore.) **\$5.35**

Weight, 15 pounds.

Rubber Bowl Rings for Sattley Separators

Sold only in packages of 6 rings.

87 E 4660—Rubber Bowl Rings for Sattley Separators Nos. 15, 17, 19 or 21. (Be sure to state size, number, serial number and bowl number of your Sattley Separator.) Per package of six rings, shipping weight, 4 ounces. Price..... **39c**

87 E 4662—Rubber Bowl Rings for Sattley Golden Harvest Separators Nos. 17, 25, 37 or 50, per package of six rings, shipping weight, 3 ounces. Price..... **36c**

87 E 4664—Rubber rings for Sattley Golden Harvest Separators Nos. 70 or 90, per package of six rings, shipping weight, 4 ounces. Price..... **38c**

87 E 4666—Rubber Rings for separators bought previous to January 1, 1917. Be sure to state serial number of bowl stamped on bowl-nut or bowl cover or bottom of bowl. Serial number also stamped on edge of bowl casting surrounding bowl; also state capacity and size, number and date of purchase of separator. Per package of 6 rings, shipping weight, 4 ounces. Price..... **48c**

Use Sattley engine for farm power.

Montgomery Ward & Co. Chicago

863

One Man can cut 35 Cords per Day With This Outfit

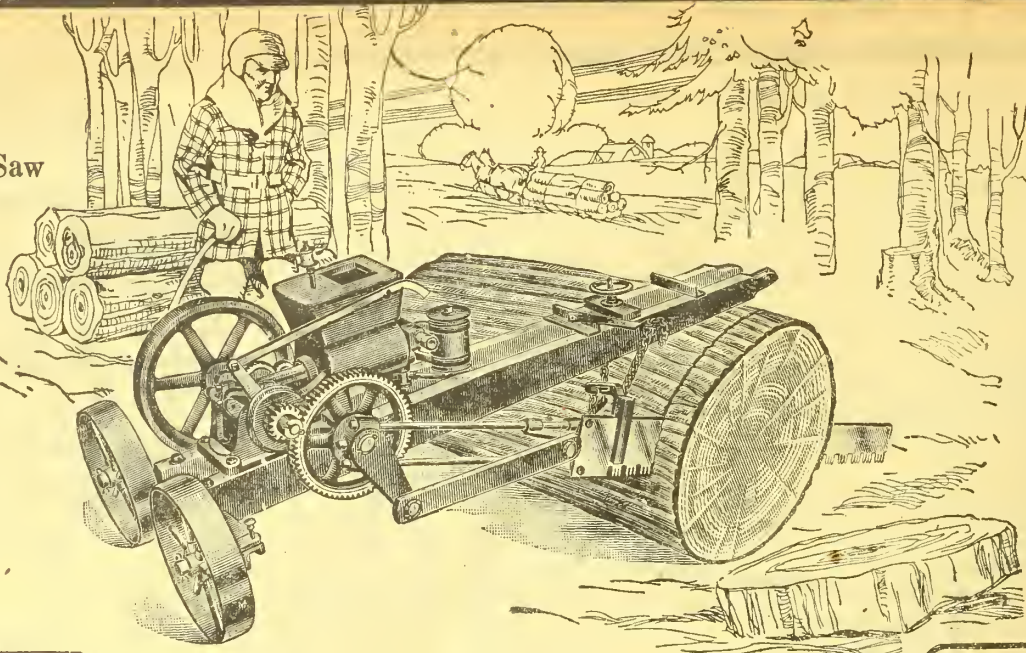
\$147⁰⁰

Climax Portable Log Saw

Average Cost to Operate
10 Cents Per Hour

One Gallon Gasoline
Sufficient to Cut
8 Cords of Wood

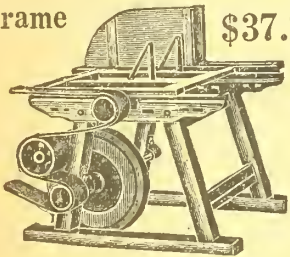
Get a Climax log saw to do your wood sawing for you. It is built so you can easily understand and operate it. When the wood sawing season is over you can use the engine for pumping water, running a grinder or doing any other 4-Horse job you may have. It is designed specially for use on the log saw outfit but we furnish a 4x4 pulley with it so it can be used for belt purposes, developing 4 full horse power.



One Man Can Saw 35 Cords of Wood a Day with a Climax Drag Saw

The machine is a fast worker as the saw blade makes over 300 strokes each minute. The outfit may be loaded onto a sleigh or wagon and taken wherever the wood is to be sawed. It can be trailed behind a wagon if you prefer, as it rides on two large wheels. It can be moved from one cut to the next by balancing the weight on the wheels. The saw is started or stopped by means of a hand lever, and if the blade is pinched in the cut the clutch will slip. The engine may continue while the blade is released. The operator is never in danger of being injured. The saw blade is of the finest grade, crucible saw steel, 10 gauge of either Simonds, Disston or Atkins make with teeth filed, set and ready for use.

Sliding Table Pole Saw Frame \$37.25

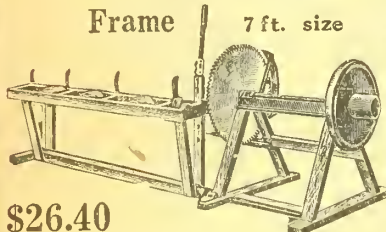


For sawing poles and cordwood. Sliding table pattern. Balance wheel on separate shaft, allowing sawing of poles as well as cordwood. Belt tightener pulley on heavy bracket shaft box prevents belt slipping and insures even steady motion. Frame seasoned hardwood, strongly bolted and thoroughly braced. Safety hood over saw blade. Diameter of arbor and mandrel pulleys, 5 inches, 6-inch face, 95-pound balance wheel, all bearings well habbitted, 1 1/2-in. cold rolled steel mandrel with 1 1/2-in. arbor. Speed 750 to 1,000 revolutions per minute. Saw blades extra. Shipping wt., 430 lbs.

287 E 6442—Right Hand Pole Saw Frame. (Cut-off wood drops to your right hand.) \$37.25
Price.....

Shipped from Factory near Chicago.

Swing Table Pole Saw Frame 7 ft. size \$26.40

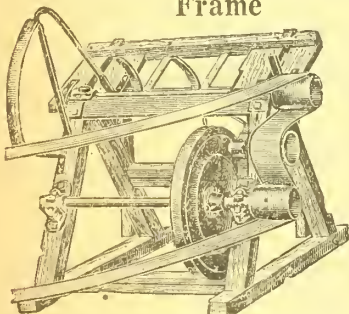


Frame made of seasoned hardwood well braced. Bearings long and well habbitted. Diameter mandrel, 1 1/2 inches, cold rolled steel turned down to 1 1/4 inches at arbor. Diameter of pulley, 5 inches with 6-inch face; 95-pound balance wheel. Suitable for saws 20 to 30 inches diameter. Speed 750 to 1,000 revolutions per minute. Tilting table is fitted with 3 rollers. Compression spring returns table to position. Steel lever fitted with dogs holds pole in place. Saw blades are extra. Shipping weight, 350 lbs. Right hand only.

287 E 6444—7-ft. Swing Table Pole Saw Frame Complete. Price..... \$26.40

Shipped from Factory near Chicago.

Swing Table Wood Saw Frame



Works equally well with cordwood or poles. Speed, per minute, 750 to 1,000 revolutions. Balance wheel is low down, and out of the way of long poles, giving machine steadier motion than if attached to mandrel. Diameter of mandrel, 1 1/2 inches, cold rolled steel; length, 49 inches, turned at arbor to fit saws with 1 1/2-inch hole. Tightener pulley in center hung on strong bracket box. Diameter of pulleys, 5 inches with 6-inch face. All bearings habbitted, 95-lb. balance wheel. Shipping weight, 400 lbs. Saw blades are extra.

287 E 6440—Right Hand only. Wood drops to your right. Price..... \$30.50

Shipped from Factory near Chicago.

Climax Portable Log Saw

The Climax engine is of the four-cycle, water cooled type, equipped with a Webster magneto. It operates on gasoline only, so the speed can be reduced or changed as often as desired and the pull may vary without making any difference in the conduct of the engine. It is easy to start on the coldest day and will run smoothly and steadily.

287 E 5004—Climax log saw outfit complete with 5-ft. blade. Actual weight, 450 pounds. Shipping weight, 490 pounds. Price..... \$147.00

287 E 5005—Climax log saw outfit complete with 6-ft. blade. Actual weight, 455 pounds. Shipping weight, 500 pounds. Price..... \$148.90

287 E 5007—Climax log saw outfit complete with 7-ft. blade. Actual weight, 460 pounds. Shipping weight, 510 pounds. Price..... \$150.80

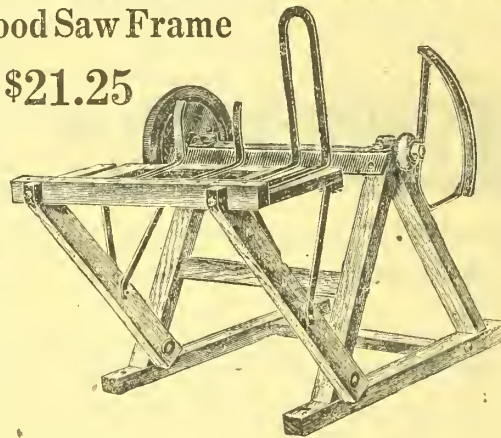
Shipped from Factory near Kansas City, Mo.

Tilting Table Wood Saw Frame

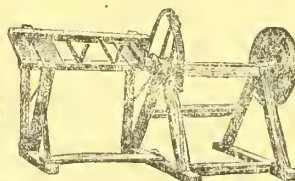
1 1/2-inch cold rolled steel, mandrel bolted frame, extra strong. Well braced. Made in 2 styles for cordwood only and with attachment for use with long poles. Frame is of dry hardwood full size, thoroughly ironed and braced. Bearings are long and well habbitted. Diameter of saw arbor, 1 1/2 in.; length, 49 in., cold rolled steel turned down at ends to fit saws with 1 1/4 in. holes. Belt pulley, diameter 5 inches, with 6-inch face. Heavy iron saw guard. Speed 750 to 1,000 revolutions per minute. Saw blade is extra. Right hand only.

287 E 6432—For cordwood only as in large illustration; 60-lb. balance wheel. Ship. wt., 275 lbs. Price..... \$21.25

287 E 6434—For cordwood only, as in large illustration; 95-lb. balance wheel. Ship. wt., 310 lbs. Price..... \$22.75



With Pole Extension



287 E 6436—Saw Frame, with pole extension for cordwood or poles, with 60-pound balance wheel. Ship wt., 300 pounds. Price..... \$22.50

287 E 6438—Saw Frame, with pole extension for cordwood or poles, with 95-pound balance wheel. Ship. wt., 335 pounds. Price..... \$23.95

Shipped from Factory near Chicago.

\$5.25

Climax Pump Jacks

\$8.95



For attaching to Ordinary Well Pump Standard. Back-gear jack, to operate by belt, with small gasoline engine or belt power. Can be attached to any ordinary pump with windmill top. Back geared 4 1/2 to 1. 3 strokes, 5 in., 7 1/2 in., 10 in. Diam. of tight and loose pulleys, 12 in. for 2-in. belt, furnished with clamps and bolts to attach to pump standard. Prices do not include pump shown in illustration.

187 E 5260—No. 10 Jack. Clamps to any ordinary pump standard up to 5 in. outside diam. Has leg support. Ship. wt., 70 lbs. Price..... \$5.25

187 E 5262—No. 11 Jack. Same as above except with sub-base which supports itself independent of pump instead of clamp and bolts. Necessary where jack can't be clamped to pump. Can be used on floor, wall or ceiling. Shipping weight, about 80 pounds. Price..... \$6.90

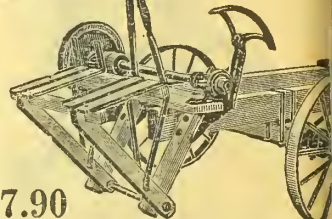


Double Back Geared

This is an excellent all-around jack to use with gas engines, all sizes. Pulleys make 341 r. p. m. while pump is making 35 strokes per minute. Can be belted direct to small engine without slowing engine down. Double back-gear. Furnished with tight and loose pulley. Back geared—9 1/2 to 1. Three strokes—4 1/2, 7 and 10 in. Pulleys, 12 in., diameter for 2-in. belt. Heavy duty pump jack that will operate any pump with upright standard and windmill head. Ship. wt., 95 lbs. Pump not furnished.

287 E 5264—Climax Type B Pump Jack \$8.95
Shipped from Warehouse near Chicago

Tilting Table Wagon Rack



\$17.90

Saw Frame Attachment

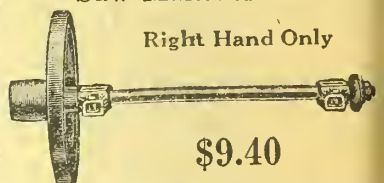
This Saw frame is made especially to attach to wagon rack. It is fitted with a 48-inch mandrel, 5x6-inch pulley, habbitted boxes and balance wheel. We furnish only the saw frame, not the wagon or rack.

Can be attached to wagon on which gasoline engine is mounted. The pulley is adjustable to line up with drive pulley on engine, and the outfit may be quickly adjusted to wide racks 38 inches or narrower, as desired. The outfit is complete. Shipping weight, with 60-pound balance wheel, 225 pounds.

287 E 6460—For right hand cut... \$17.90
287 E 6461—For left hand cut... \$17.95
Shipped from Factory in Illinois.

Saw Mandrel Sets

Right Hand Only



\$9.40

For use on pole or cordwood sawing outfit. Length of mandrel, 49 inches; diameter, 1 1/2 inches. Cold rolled steel turned to 1 1/4 inches at arbor for saws with 1 1/2-inch holes. Boxes at arbor for saws with 1 1/2-inch holes. Boxes 60 and 95 pounds with key ways; diameter of pulley, 5 inches, 6-inch face. Right hand shipped unless you order left hand. Bolts not furnished. **287 E 6446—Complete set, including mandrel, with arbor plates, flat habbitted boxes, 5-inch pulley with 6-inch face, and 60-pound balance wheel. Can be used on any flat top frame. Ship. wt., 125 lbs. Price..... \$9.40**

287 E 6447—Complete set, as above, but with 95-pound balance wheel. Ship. wt., 160 lbs. Price..... \$10.95

287 E 6448—Mandrel only, with arbor plates and nut. Ship. wt., 31 lbs. Price..... \$2.85

287 E 6449—60-pound balance wheel only. Price..... \$3.50

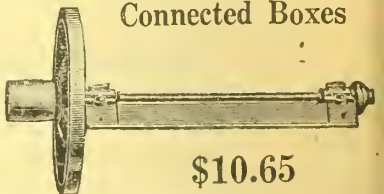
287 E 6450—95-pound balance wheel only. Price..... \$5.25

287 E 6451—Flat habbitted boxes. Per pair..... \$1.95

287 E 6452—5-inch diameter, 6-inch face pulley. Price..... \$1.30

Shipped promptly from Factory near Chicago.

Saw Mandrel Sets with Connected Boxes



\$10.65

Balance wheels, 60 and 95 lbs. with key ways. Diameter of mandrel, 1 1/2 inches. Length, 49 inches, with 1 1/2-in. saw arbor. Bolts not furnished.

287 E 6454—Mandrel set, including mandrel with arbor plates, 60-pound balance wheel, connected boxes and pulley. Shipping weight, 140 pounds. Price..... \$10.65

287 E 6455—Mandrel set, including mandrel with arbor plates, 95-lb. balance wheel, connected boxes and pulley. Ship. wt., 170 lbs. Price..... \$12.30

287 E 6456—Connected habbitted boxes. Weight 15 pounds. Per set, price..... \$3.30

Shipped from Factory near Chicago.

Ward's New Ball Bearing Windmills *They Work Quietly*

THERE is a great satisfaction in owning a Ward's Ball Bearing Windmill because of its easy, quiet running and heavy, rigid construction.

These Windmills do not squeak and clatter, disturbing the quietness of the surroundings. They work quietly and in perfect balance because they are made right. These mills are equipped with ball bearings in the turn table.

Wind Wheel is made up in 6 sections in all sizes except the 6-ft. mill, which is made in 4 sections. Our mills have 4 sails to each section; each section is rigidly supported by heavy anchor steel braces.

Vane is made of heavy galvanized sheet steel and heavy steel bracing and is provided with an effective spring governor, which by its action on the vane holds the wheel at the proper angle to develop only the required velocity for work in heavy winds and causing it to face lighter winds full.

Graphite Bearings for 1921

Ball Bearing Windmills

Will not Fit Old Mills When Desired, we can supply all prices quoted below a set of

Graphite bearings for our ball bearing Windmills. Graphite bearings do not require oiling and thereby save you the task of oiling the mill. This bearing has sleeve of phosphor bronze metal with graphite in grooves on inside. If you want one of our ball bearing Windmills with graphite bearings, be sure to allow extra price quoted for the size Windmill you order.

287 E 5105—Extra price for Graphite Bearing, 6 foot Mill.....\$7.00
287 E 5106—Extra price for Graphite Bearing, 8 foot Mill.....12.00
287 E 5107—Extra price for Graphite Bearing, 10 foot Mill.....16.75
Shipped from Factory in Southern Wisconsin.

Galvanized All-Steel Windmill Towers

Our towers are built of strong steel and made to withstand the severest storms. Corner posts, braces, band- girth, bolts and nuts are galvanized after all cutting and punching is done, leaving no rough edges unprotected. Made in 3 styles or weights, each properly proportioned for the mills they are designed to support. A set of cross girts is provided for every 10-ft. section, last set being close to ground and just above the anchor post joints. Each 10-ft. section is firmly braced by 4 sets of round steel brace rods with an eye turned at each end so as not to reduce the size. Two rods on each side of the tower cross each other at a point near center of the section, where they are clamped and can be tightened so each pair of rods bear same tension, making tower rigid and firm. Also have diagonal cross rods from corner post to corner post in every 10-ft. section by means of which the tower is squared up. Ladders are made of steel, firmly riveted, making them safe to climb. Pull-out lever attached to left post is furnished when mill and tower are furnished together.

Note the weights of our towers indicating the heavy construction and material used, insuring strength and rigidity.

Model No. 1. For 6-ft. and 8-ft. Mills

| Article Number | Price | Hgt. Ft. | Shp. Wt. Lbs. |
|----------------|---------|----------|---------------|
| 287 E 5212 | \$29.40 | 20 | 350 |
| 287 E 5214 | \$34.40 | 30 | 535 |
| 287 E 5216 | \$57.00 | 40 | 700 |
| 287 E 5218 | \$82.00 | 50 | 940 |

Model No. 2. For 10-ft. Mill

| Article Number | Price | Hgt. Ft. | Shp. Wt. Lbs. |
|----------------|---------|----------|---------------|
| 287 E 5220 | \$32.75 | 20 | 390 |
| 287 E 5222 | \$47.00 | 30 | 560 |
| 287 E 5224 | \$64.00 | 40 | 745 |
| 287 E 5226 | \$84.00 | 50 | 1000 |

Shipped from Factory in Southern Wisconsin.

Windmill Quadrants



187 E 5250—Price, without Wires.....\$6.30

Each.....Shipping weight, about 53 lbs.

For either pumping or power mills.

Used to transmit power from mill when mill is some distance from the pump. Two levers with two wires drawn tight by take-up bolts. Pump connection, 8 feet of wood pump rod, pivot plates and center bolts included.

187 E 5251—Quadrant galvanized wire for connecting.....8c

Price, per rod.....

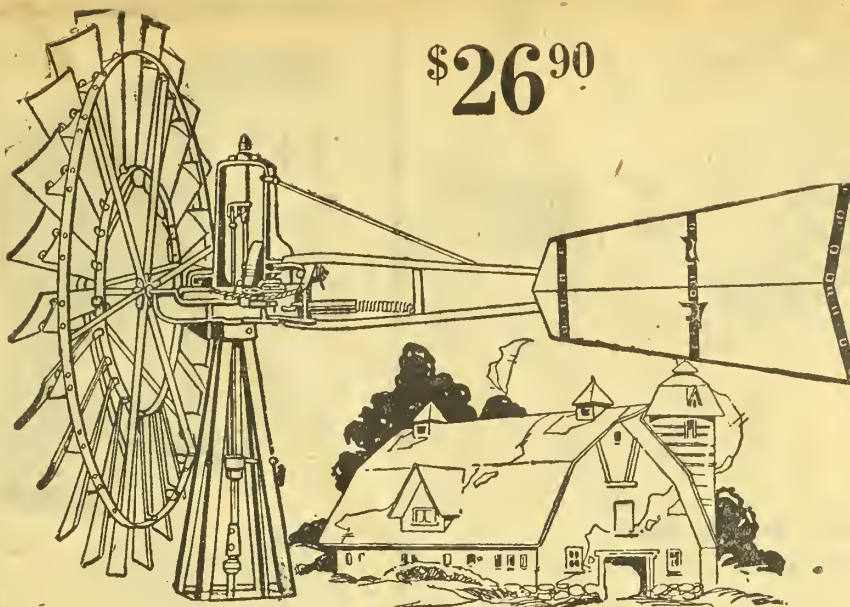
Steel Tray Cement Barrow



\$8.75

Equipped with wood extension handles to allow load to be dumped over wheel. Size of Tray: Top, 24 inches wide by 36 inches long; depth at handles, 8 inches; at wheel, 14 inches. Handles, 1 1/2 x 2 1/2 inches. Tray elevated in front with wooden risers bolted to the frame to prevent the load from slushing while wheeling. Weight, 73 pounds each. Capacity, 3 cubic feet, wet.

184 E 5612—Price.....\$8.75



\$26⁹⁰

Prices, New Ball Bearing Windmills

| Article Number | Size of Wheel | Shipping Weight | Price |
|----------------|---------------|-----------------|---------|
| 287 E 5101 | 6 ft. | 280 lbs. | \$26.90 |
| 287 E 5102 | 8 ft. | 380 lbs. | \$39.75 |
| 287 E 5103 | 10 ft. | 470 lbs. | \$56.50 |

Shipped from Factory in Southern Wisconsin.

Continuous Concrete Mixers

Made in two styles as quoted below. The Farmer's Friend is a plain mixer with a capacity of about 2 1/2 Cu. Ft. The mixing drum is about 4 ft. long and is equipped with worm for mixing the concrete. Has plain pulley, 12 in. in diameter, 3 in. face and should be operated at about 220 revolutions per minute.

The Automatic Mixer is the same as the Farmer's Friend, but has an additional hopper built on top. This extra hopper has two worms in the bottom for forcing the cement and gravel to the main drum. The sand hopper has a capacity of 2 cu. ft., and the cement hopper holds two sacks of cement. Star wheels are furnished which can quickly be put on or taken off and will enable you to get any mixture you wish from 2 1/2 to 1, to 8 to 1. Hopper easily removed for cleaning. Has 12x3 pulley with clutch for throwing in and out of gear. Should be run about 200 revolutions per minute.

These continuous mixers have a water tank with shut-off valve so that you can always get the proper moisture.

Both machines are strongly built and are absolutely guaranteed.

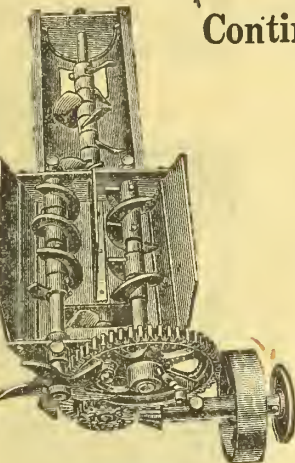
287 E 5850—Farmer's Friend Continuous Mixer. Weight, about 300 pounds. Price.....\$36.40

287 E 5852—Automatic Continuous Mixer. Weight, about 350 pounds. Price.....64.40

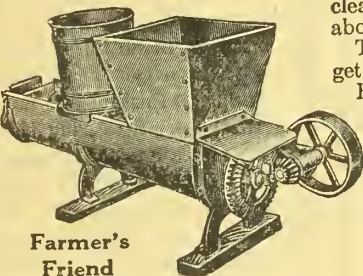
287 E 5857—Complete Outfit consisting of Automatic Mixer with 1 1/2-H. P. Sattley Gasoline Engine and Belt (No Truck). Shipping weight, 850 pounds. Price.....\$118.90

287 E 5860—Trucks only. Weight, about 200 pounds. Price.....19.60

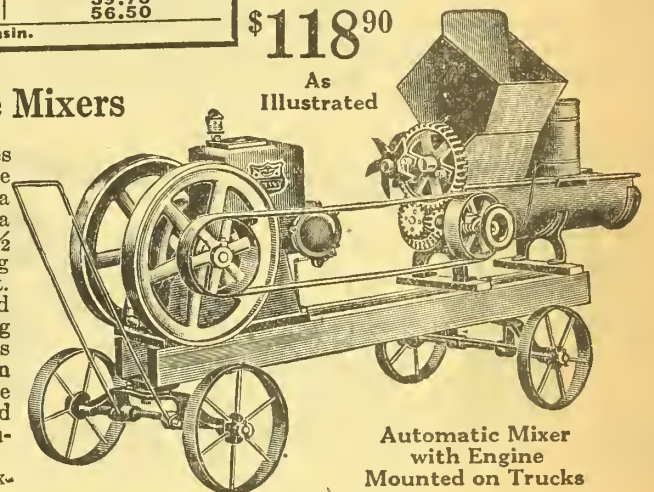
Shipped from Factory in Iowa.



Showing Worms in Hoppers Automatic Mixer



Farmer's Friend Mixer



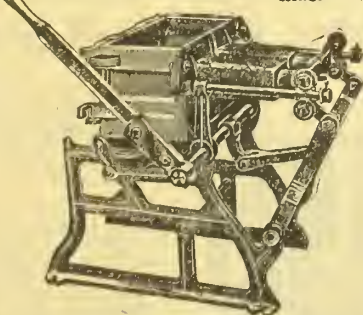
\$118⁹⁰

As Illustrated

Automatic Mixer with Engine Mounted on Trucks

Concrete Block Machine

Equipment regularly furnished with each complete machine:



287 E 5900—Complete 8x8x16-inch block outfit. Ship. wt., 400 lbs.....\$84.00

Other styles of Blocks that can be made on the Diamond and for which we can supply Plates and Doors. Panel Face, Plain Face, Cobblestone Face, Broken Ashlar. Will equip machine with either of above style plates in place of rock face plates if so ordered.

Prices of Extras

287 E 5908—Face Plates for whole blocks, for 1/2, 3/4 blocks and for 3/4 blocks. State style of plate and kind of face.....\$7.00

Price, each.....

287 E 5910—End Door. Price, each.....4.00

287 E 5914—Iron Pallets. Price, each......85

Shipped from Iowa Factory.

Concrete Batch Mixer

Strongly constructed throughout so as to withstand any amount of hard service and is just the right size for all kinds of farm work. Will pay for itself quickly on any farm for such jobs as building granaries, sidewalks, foundations, feeding pens, walls, etc. Pulley is 16 inches in diameter, with 3 inch face and should be run 150 to 200 revolutions per minute. Can be operated with any gasoline engine, 1 H. P. or up. Crank is also furnished so that it can be run by hand when desired.

Frame is strong angle steel. Heavy steel drum. Cone shaped to give best results. Three blades inside get perfect mix. Capacity, 2 1/2 to 3 cubic feet.

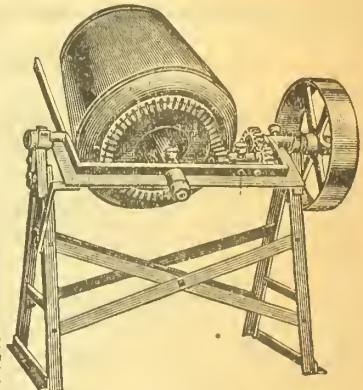
Lids on either side and dumps on either side. The yoke is held in the frame by bearings which hold securely to the frame casting. Perfectly balanced so it can be tilted easily with full load. The gear ratio is 5 1/2 to 1. Bearings have hard oil cups.

287 E 5862—Batch Mixer with pulley. On skids. Weight, about 240 pounds. Price.....\$39.25

287 E 5863—Batch Mixer on skids with sprocket, 8 feet of chain and sprocket board to fit your engine. Weight, about 260 pounds. Price \$49.00

287 E 5860—Steel wheel truck for mounting mixer. Weight, about 200 pounds. Price.....\$19.60

Shipped from Iowa Factory.





Peerless Self Feed Two Hole Corn Sheller

A Big Sheller for Big Jobs

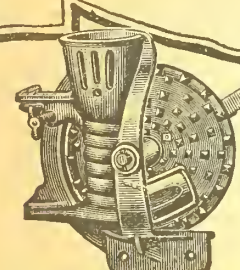
Our Peerless is a sheller that can be operated at its fullest capacity at a very low power cost. Capacity, 50 to 75 bushels per hour with 3 horse power and 75 to 100 bushels with 4 or 5 horse power.

Frame, shafting, chains, gears and mechanism are extra heavy. Powerful fan cleans the shelled corn. Shifting clutch allows throwing feeder in or out of gear instantly. Height, 5 ft.; width, 30 in.; length over all, 55 in. Made of selected hardwood. Solid center balance wheel, weight, 60 lbs. Diameter, 18 in.; 12x4 in. pulley.

- 287 E 2752—Peerless Self-Feed Sheller without elevator or stacker. Shipping weight, 700 pounds. Price **\$93.35**
- 287 E 2754—8-ft. Straight Out Cob-Stacker. Ship. wt., 70 lbs. Price **\$14.00**
- 287 E 2756—8-foot Swivel Cob-Stacker delivers cobs at any angle from Sheller. Ship. wt., 140 lbs. Price **\$24.35**

- 287 E 2758—5-foot Sacking Elevator. Ship. wt., 110 lbs. Price **\$20.00**
- 287 E 2760—Wagon Box Elevator. Ship. wt., 170 lbs. Price **\$28.00**
- 287 E 2764—Mounting trucks with pole (no neckyoke or doubletrees). Ship. wt., 500 pounds. Price **\$53.35**

Shipped from Factory near Chicago.



Dandy Corn Sheller

\$1.20

The Dandy is adjustable to large or small ears of corn and does first class work. It is made of cast iron. Has spring tension with thumb nut, large sheller-wheel. No bolts furnished. Weight, 8 lbs.

- 487 E 2700—Price **\$1.20**
- 87 E 2701—Pop Corn Attachment. Price **.10**

Neverfail Corn Sheller

\$2.40

Will deposit the corn in barrel or box on which it is mounted, and deposit cobs outside.

- Made of heavy cast iron. Ship. weight, 13 1/4 pounds.
- 487 E 2704—Sheller with Butting and Tipping Attachment. Price **\$2.40**



\$45.50

Big-Four Triple Geared Sweep Mill



Grinds ear corn rapidly either coarse or fine, also shelled corn, wheat, rye, kafir corn, etc. Burrs make three revolutions to each round of the horses. Easy running and good capacity.

Diameter of burrs, 16 inches; height, 3 3/4 inches; made of white metal so hard that with ordinary care set should grind from 6,000 to 8,000 bushels of grain. With corn in fair condition and team making 3 1/2 revolutions per minute, will grind 12 to 20 bushels per hour, to a medium degree of fineness. Capacity for oats is about one-half of corn, but half and half oats and corn or other hard grains, gives good capacity. A hand lever at top allows tightening and loosening of burrs when hopper is full of grain. Made with coarse burrs for shelled corn and cob corn, and fine burrs for shelled corn and small grains. Coarse burrs regularly furnished. Shipping weight of mill, 600 pounds; burrs, 40 pounds.

- 287 E 3050—Big-Four Sweep Mill, with sweep, wood platform and one pair burrs. Price **\$45.50**
- 287 E 3052—Coarse Burrs, per set. **4.75**
- 287 E 3054—Fine Burrs, per set. **4.80**

Shipped from Factory in Iowa.

Plain Mill (On Box)

A plain mill not geared. Burrs 16 1/2 in. diameter. Mounted on box, not on legs. Capacity, 5 to 8 bushels dry corn per hour. Fine or coarse burrs. Coarse burrs shipped unless otherwise ordered. Wt., Mill, 270 lbs. Burrs, 40 lbs.

- 287 E 3056—One Horse Sweep Mill on Box Price **\$23.00**
- 287 E 3068—Fine Burrs, Price per pair **4.80**
- 287 E 3069—Coarse Burrs, Price per pair **4.85**

Shipped from Factory in Iowa.

Corn Shellers



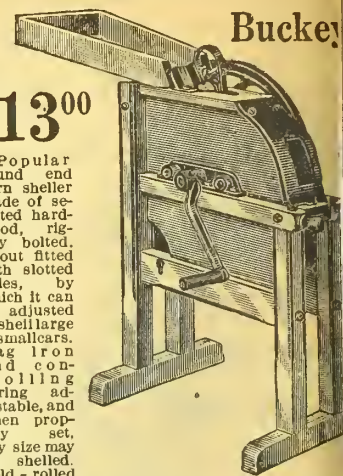
Climax

\$11 65

Framework is hardwood strongly joined together with mortised and tenoned joints. Low gear and heavy balance wheel make it easy to operate. Cold rolled Steel Shaft. Large spout fitted with slotted holes by which it is adjustable for small or large corn. Ample feed table attached to large throat. Delivers cob on end. Furnished complete with fan and feed table, or plain, as desired. Capacity, about 10 bushels per hour.

- 287 E 2730—Sheller complete with fan, feed table crank and balance wheel. Ship. wt., 120 lbs. Price **\$11.65**
- 287 E 2732—Without fan or feed table, otherwise complete. Ship. wt., 105 lbs. Price **\$10.50**
- 287 E 2734—8-in. pulley to run by power. Ship. wt., 12 lbs. Price **\$1.10**

Shipped from Warehouse near Chicago.



Buckeye

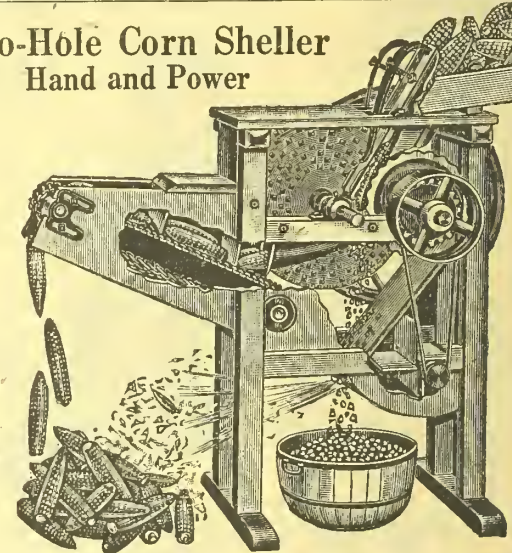
\$13 00

Popular round end corn sheller made of selected hardwood, rigidly bolted. Spout fitted with slotted holes, by which it can be adjusted to shell large or small ears. Bag iron and controlling spring adjustable, and when properly set, any size may be shelled. Cold-rolled steel shaft; balance wheel large and heavy. Capacity, from 20 bushels per hour. Shipping weight, 142 lbs.

- 287 E 2736—Price, complete with fan and table. Warehouse near Chicago. **\$13.00**
- 287 E 2738—Price, without fan or feed table otherwise complete, at warehouse near Chicago. Ship. wt., 130 lbs. **\$11.00**
- 287 E 2734—Pulley, 8-in. diam., to run power. Ship. wt., 12 lbs. **\$1.10**

Shipped from Warehouse near Chicago.

Two-Hole Corn Sheller Hand and Power



\$25 00

Thousands of these shellers in use throughout the Corn Belt

No corn too big for it

No work too hard for it

No job too fast for it

Hand or Power Sheller for general farm use. Frame is heavy hardwood, firmly fastened together. Shaft is heavy cold-rolled steel, and runs in iron bearings, bored through and bolted. Shelling Wheels geared high to give good capacity. Feed Spout directly over shelling wheel. Rag iron and Springs adjustable to any size corn. Cob-Carrier separates shelled corn from cobs, delivering the cobs at a distance from the foot of the sheller. Has a Fan for cleaning corn and putting it in a marketable condition. Complete with Fan, Feed Table, Crank and 8-inch Pulley. When run by power the pulley on balance wheel shaft should make 300 revolutions per minute. Can be operated with any small engine. Capacity, 20 to 30 bushels per hour. Shipping weight, about 250 lbs.

- 287 E 2742—Price Complete With Cob Carrier, Fan, Feed Table and 8-inch Pulley **\$25.00**

Shipped from Warehouse near Chicago.

Fanning Mill for Cleaning, Grading

Our Fanning Mill with the proper attachments, will grade and clean any kind of seed, will separate grass seed from grain and throw out all weed seeds, dirt, vine and trash.

Special—Seed Corn—Seed Oats—Seed Barley

The special Grading Attachment 287E6190 quoted in the extra outfit consists of one long mesh sieve with heavy metal sheet attached, and one square mesh screen for cleaning and grading corn, also one special mesh screen. The special screen will take out the small grains in oats and barley and leave the big strong healthy grains for seeding purposes.

Each mill regularly furnished with 3-gang wheat hurdle with perforated metal-top sieve, wheat grader, slide spout, wheat screen, barley sieve, oat or corn sieve and chess board. This outfit is sufficient for cleaning or grading wheat, oats, rye, barley, peas, beans, corn, cotton, buckwheat, kafir corn, broom corn. This mill will do any ordinary work with the regular equipment. The extras quoted are for special work. You do not have to buy a lot of screens which you may never need.

Number 1 size has a capacity of 40 to 60 bushels of grain per hour. Number 2 size has a capacity of 60 to 80 bushels of grain per hour.

Posts and cleats are maple—extra heavy. Body very strong, being made from heavy selected hardwood. With ordinary care will last a life time.

Heavy sheet steel drum will never warp or crack—is practically indestructible.

Gearing on inside of mill, therefore protected from injury.

Elevator made of same material as mill—stronger and more durable than ordinary elevators used on other mills—has two bag holders. Driven direct from main shaft—nothing to get out of order.

Regular No. 25 Malleable Chain used on elevator.



and Separating Grain

Prices

- 287 E 6170—No. 1 mill without elevator. Ship. wt., 200 lbs. **\$32.00**
- 287 E 6171—No. 2 mill without elev. Ship. wt., 220 lbs. **42.00**
- 287 E 6172—No. 1, with elev. and bagger. Ship. wt., 265 lbs. **43.85**
- 287 E 6173—No. 2, with elev. and bagger. Ship. wt., 285 lbs. **53.85**

Extra Outfits

- 287 E 6178—1 Sieve and 1 Screen Outfits for cleaning clover, beans, peas, flaxseed, millet seed, For No. 1 For No. 2 broom corn, alfalfa, orchard grass, timothy, for cock No. 1 No. 2 for separating mustard seed from oats. Price for each outfit. (State which is wanted) **\$2.95 \$3.45**
- 287 E 6183—Succotash hurdle for separating oats from wheat. **\$6.85 \$7.85**
- 287 E 6186—One long mesh screen to separate chess from wheat. **\$1.50 \$1.75**
- 287 E 6189—Rice outfit in place of regular outfit adapting mill for rice only. **\$1.95 \$1.95**
- 287 E 6190—Special outfit for cleaning and grading corn, oats and barley for seed. **\$6.85 \$7.85**

Write for prices on special sieves or cleaning outfits, warehouse mills etc.

Pulley for Power.

We can furnish pulley for power on the No. 1 and No. 2 Mills. Diameter, 10 in.; face, 2 in. Pulley should not exceed 60 R. P. M. Ship. wt., 12 lbs.

- 287 E 6198—Price **\$2.75**

Shipped from Warehouse near Chicago.

Feed Grinders



Flour and Meal Feed Grinder

\$14.95

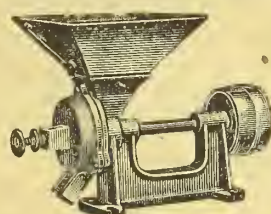
Grinds meal fine enough for table use. Balance wheel and pulley outside of frame, easy to remove or replace belt. The bolting attachment makes the flour or meal suitable for family use. Grinds more, lasts longer and costs less for repairs than many other mills of its size. Burrs can be adjusted for either coarse or fine grinding. Burrs are the "Crowfoot" shown on this page and each mill furnished with both fine and coarse burrs.

Requires 1 to 2 horse-power to grind from 6 to 20 bushels per hour, depending on quality of grain and fineness of grinding. Diameter of burrs 5½ inches, regular pulley 6½ inches, diameter 4½-inch face. We can furnish 8x4, 10x3 or 12x3 inch pulleys in place of regular upon request. Speed, 200 to 600 R. P. M.

287 E 3004—Complete with bolting attachment, legs and balance wheel and pulley. Ship. weight, 125 pounds. **\$14.95**

E 3012—Feed grinder only, without legs or balance wheel and bolting attachment. Ship. wt., 20 pounds. Price, **\$10.25**
E 3016—Legs extra for grinder. Ship. wt., 20 pounds. Price, **\$1.15**
E 3018—Balance wheel. Ship. wt., 20 pounds. Price, **\$1.55**

Shipped from Factory in Iowa.
E 3006—Extra Burrs, fine or coarse. State wanted and give numbers on old burrs. Ship. wt., 3½ lbs. Price, per pair, **\$1.10**
 Shipped from Factory or Stock at Chicago.



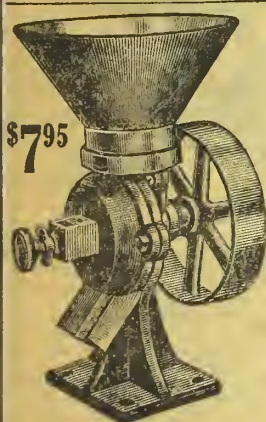
Crowfoot Burrs

This burr is used in the three-metal burr Power Mills and the Stand Hand Mills shown on this page. Self sharpening, fast grinding and durable.

Oats. No other style burr can grind oats so well because the Crowfoot cuts up the hulls.

It also does splendid work grinding ear corn, shelled corn, wheat, rye, barley or any dry grain.

Notice. These Crowfoot burrs will not fit in old mills. Do not order Crowfoot burrs unless your mill was fitted with Crowfoot burrs when received. When ordering any kind of new burrs, always give numbers on old burrs.



Climax Jr. Small Grain Mill

For Grinding Small Grain such as Wheat, Rye, Oats, Corn, etc.

Here is one of the most popular Feed Mills made for grinding all kinds of grain such as shelled Corn, Oats, Rye, etc. Can be operated with any Engine or Motor Power from 1 H. P. up.

Frame cast in one piece and is solid and strong. Bearings are long and lined with a high grade babbit. The Crowfoot burrs are 5½-in. diameter, ground perfectly true. These burrs can easily be adjusted for fine or coarse grinding. Capacity from 6 to 20 bushels per hour depending entirely on the power, kind of grain, and its condition. Should be run from 200 to 600 revolutions a minute. Pulley is 12-in. diameter, with 3-inch face.

Furnished complete with two pair of burrs, one coarse and one fine. Ship. wt., Mill, 62 pounds.

Burrs, per set, 3½ pounds. **\$7.95**

287 E 3000—Mill Complete. Price, **\$7.95**

287 E 3001—Extra Burrs, Fine. Price, **1.10**

287 E 3002—Extra Burrs, Coarse. Price, **1.10**

Always advise numbers on old burrs when ordering new ones.

Shipped from Factory in Iowa.

Climax Stand Grist Mill

\$3.35

Adjustable to grind fine or coarse. Grinds small grains, corn, wheat, oats; also coffee, salt, dry bones, dry shells, etc. Size 1, suitable for kitchen use grinding feed, cracking corn, etc. Size 2 has larger burrs, and heavier balance wheel, giving much greater capacity. Fitted with Crowfoot burrs.

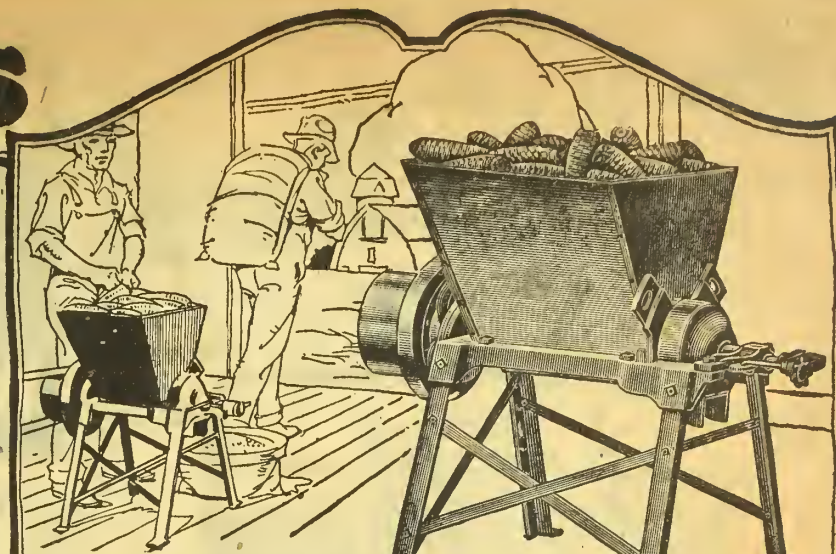
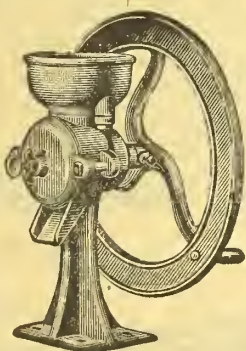
487 E 2950—Size No. 1. Wt., 25 Pounds. **\$3.35**

487 E 2951—Size No. 2. Wt., 50 lbs. Price, **4.95**

487 E 2953—Size No. 1 Extra Burrs. Price, Set **.50**

487 E 2954—Size No. 2 Extra Burrs. Price, Set **.70**

Shipped promptly from Chicago.



Grinds corn on cob, shelled corn, kaffir corn, milo maize, wheat, oats, barley, rye and other grain separately or mixed.

Frame, single casting; designed to resist six times ordinary strain. Heavy riveted corners. Steel legs with cross braces. Spiral concave, cob breakers of hard chilled iron bolted to frame. Cob crushers secured to shaft by safety break pin. Extra long bearings. Large oil wells. Main shaft heavy cold rolled steel, 1½ in. on the 8-inch No. 1 Mill and 1½ inch on the 10-inch No. 2 Mill. Should be operated with from 4 to 7 H. P. for No. 1 Mill and 7 to 12 H. P. for No. 2 Mill, and run at from 400 to 700 revolutions a minute, according to power No. 1 will grind from 10 to 35 bushels, and No. 2 from 20 to 60 bushels per hour, depending entirely on the power, speed, kind of grain and its condition, whether dry or damp and also whether grinding coarse or fine. The grain should be dry and clean to get full capacity out of any mill. Prices include balance wheel and two sets of burrs.

Climax Feed Mill

\$23.80

The Crowfoot burrs used on these mills will outgrind and outwear any ordinary burr and are especially good for oats because they cut up the hulls. These burrs will not fit in old mills so do not order Crowfoot burrs unless your mill was fitted with them when received.

If so ordered will fit 8-inch mill with pulley 8x6 or 12x6 and 10-inch mill with pulley 10x6 or 14x6.

| Article Number | Size Mill | Size Pulley | Wt. Lbs. | Price | Extra Burrs Number | Price |
|----------------|-----------|-------------|----------|---------|--------------------|--------|
| 287 E 3024 | 8 in. | 10x6 | 245 | \$23.80 | 287 E 3028 | \$1.40 |
| 287 E 3026 | 10 in. | 12x6 | 355 | \$35.70 | 287 E 3030 | \$1.90 |

When ordering burrs always give numbers on old ones.
287 E 3032—5-ft. Double Sacking Elevator Wt., 75 lbs. **\$18.00**

Price, each, 10-ft. Wagon Box Elevator with swing spout. Weight, 105 pounds. **\$29.35**

Shipped from Factory in Iowa.



Wilson Family Grist Mill

Every country home should be supplied with one of these little grist mills, having removable hard metal burrs which are ground true, and which can be adjusted so as to grind to any degree of fineness. Has heavy balance wheel making it run easy. It will

grind corn, wheat, rye, peas, salt, etc. Ship. wt., 24 pounds.

487 E 2932—Family Grist Mill. **\$3.50**

Each. **187 E 2934**—Extra Burrs. Wt., 3 pounds

Per Set, **1.05**

Shipped promptly from Stock at Chicago.

Wilson Hand Grist Mill

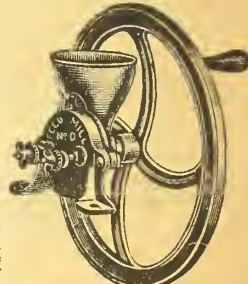
Especially adapted for grinding flour, corn meal for table use, wheat, rice and cracking corn and other grains for feeding purposes. Genuine Wilson Hand Grist Mill with a reputation of many years' standing as the highest type of hand mill.

The Grinding Burrs are of extra hard metal ground true on emery wheels and will give long service. They are adjustable for fine and coarse grinding. Has large hopper, steel shaft and heavy balance wheel. Ship. wt., 27 lbs.

487 E 2936—Wilson Grist Mill. Price, **\$5.20**

187 E 2938—Extra Burrs, wt., 2 pounds. **1.15**

Shipped promptly from Stock at Chicago.

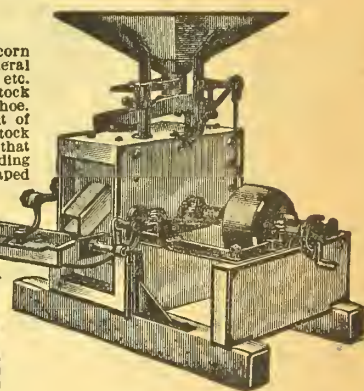


Climax Stone Burr Mill

Will grind finest table meal without heating the meal. Cleans corn perfectly. Stones dressed for corn meal but can be used for general work and will handle crushed ear corn, wheat, oats, rye, barley, etc. Suited for farm or custom grinding. The body is built of selected stock carefully fitted and bolted. Hopper is large with a wide-screen shoe. Latest Improved Folding Mill Bolter, which can be folded up out of the way when not needed. Burr stones are of the very best Burr-stock carefully mated and will give long service, and are so arranged that they cannot be set up too close so as to injure or dull the grinding faces of the burrs or drift together when the grain runs out. Scraped metal bearings and well designed oiling arrangements at every point where necessary. Full directions for setting up, operating and dressing the stones sent with each mill. Floor space required 2x5 to 3½x5½ feet.

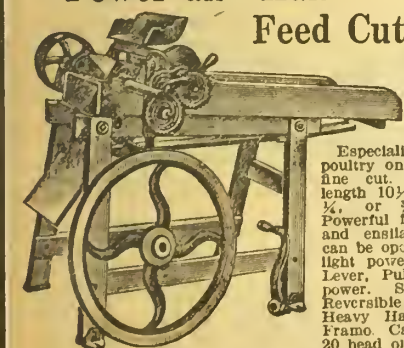
Shipped from Factory in North Carolina

| Article No. | Size Burr | Wt. Lbs. | Speed | Horse Power | Bus. Meal per Hr. | Feed per Hr. | Size Pulley In. | Price Each |
|-------------|-----------|----------|-------|-------------|-------------------|--------------|-----------------|------------|
| 287 E 3137 | 12 in. | 550 | 1000 | 4 to 5 | 2 to 5 | 8 to 10 | 8x5 | \$76.00 |
| 287 E 3138 | 16 in. | 750 | 800 | 6 to 8 | 8 to 10 | 10 to 20 | 10x6 | \$87.75 |
| 287 E 3140 | 20 in. | 1000 | 700 | 8 to 10 | 6 to 12 | 20 to 25 | 12x6 | \$110.25 |
| 287 E 3142 | 24 in. | 1250 | 600 | 10 to 12 | 8 to 15 | 25 to 30 | 14x8 | \$142.50 |
| 287 E 3144 | 30 in. | 1750 | 500 | 12 to 20 | 12 to 20 | 30 to 40 | 14x8 | \$187.50 |



Power and Hand Driven Feed Cutter

\$35.50



Especially adapted for poultry on account of its fine cut. Three knives length 10½ in. Cuts ¼, ½, or ¾-inch lengths. Powerful fast-cutting feed and ensilage cutter that can be operated with very light power. Safety Stop Lever, Pulley to run by power. Safety Flywheel, Reversible Cutting Bars. Heavy Hardwood Bolted Frame. Capacity for 10 to 20 head of stock and easy to run by hand, when a small amount of feed only is desired. Has sliding cone gear for changing length of cut. 1 to 1½ H. P. required at 300 to 400 R. P. M. Diameter, driving pulley 10 inches; face, 3 inches. Capacity per hour, dry fodder, 800 to 1,200 lbs.; green fodder, 1,200 to 2,400 pounds. Shipping weight, 300 pounds.

287 E 6568—With pulley and crank, at warehouse near Chicago. **\$35.50**

\$17.60

Has heavy balance wheel which, with the shearing cut of knives make the machine very light running. Frame heavy hardwood, strongly bolted. Shaft is heavy, cold-rolled steel. The two knives are oil tempered tool steel and so constructed as to make a downward shearing cut. Feed rolls are large and driven by expansion gearing.

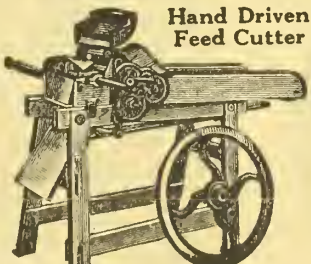
Safety lever stops feed roll instantly while the machine is running.

When both knives are used the cuts on smaller machine are ¼-inch, ½-inch or 1-inch in length by removing one of the knives.

| Article Number | Length Knives | Cut Inches | Cap. Fodder Per Hour | Ship. Wt. Lbs. | Price |
|----------------|---------------|------------|----------------------|----------------|---------|
| 287 E 6564 | 8½ in. | ¼ to 2 | 150 | 300 | \$17.60 |
| 287 E 6565 | 10½ in. | ¼ to 2 | 325 | 600 | 27.50 |

287 E 6566—Pulley, 10x3 inches for **287 E 6565** only, to run by light power. Weight 18 pounds Price, **\$2.25**

Shipped from Warehouse near Chicago.



Hand Driven Feed Cutter

Power Driven Feed Cutter

\$42.25

For cutting up any kind of feed for stock. Hardwood bolted frame. Knives set spirally for shearing cut against steel cutting bar. Heavy safety flywheel set to main shaft by safety friction block. 12x4-inch pulley; speed 400 revolutions capacity 1 to 1½ tons dry fodders and 2 to 3 tons green fodder per hour. Shipping weight, 400 pounds.

Cuts ¼, ½ or 1-inch long, by removing two opposite knives cuts will be ¼ to 1½ or 2 inches long.

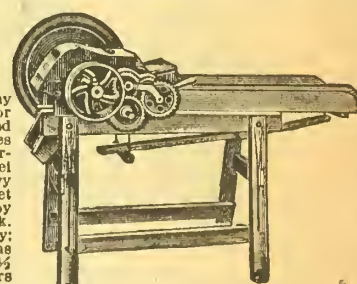
287 E 6570—Superior Power Feed Cutter No. 11 cuts ¼, ½ or 1-inch. Has 4 11-inch knives; 1 to 2½ horsepower. **\$42.25**

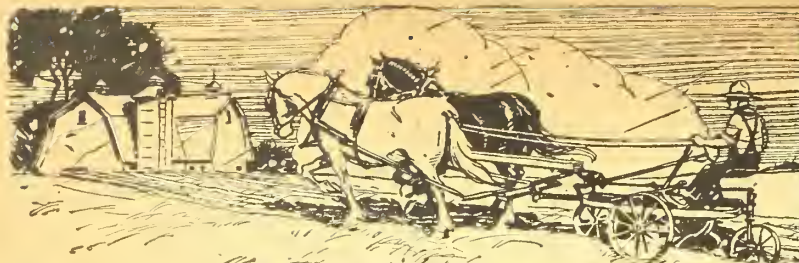
Price, **287 E 6573**—Crank to run by hand extra. **1.40**

287 E 6574—12-foot screw elevator for No. 11 cutter. Ship. weight, 200 pounds. Price, **\$37.80**

287 E 6576—Extension to increase elevator in 4, 8 or 12-foot lengths. Shipping weight, per foot, 12 lbs. Price, per foot, **\$1.40**

Shipped from Warehouse near Chicago.





Ward's Sattley Riding and Walking Plows

Gang and Sulky Plows

Single Bail Makes Light Draft Quality of Plowing.

The bottoms of the Sattley plows are carried in the frame upon a single bail which allows the plow bottom to be carried in the ground at a uniform depth, not being affected by the wheels or the plow frame in running over the unevenness of the surface of the ground, thus insuring a level plowed field under all conditions.

Lightness of Draft Upon the Horses

The bell crank works with a free, rocking motion, preserving at all times the perfect flexibility of the plow in the soil and at the same time carrying the pressure from the moldboards directly to the rear wheel, thus relieving the landside pressure and lessening the draft upon the horses.

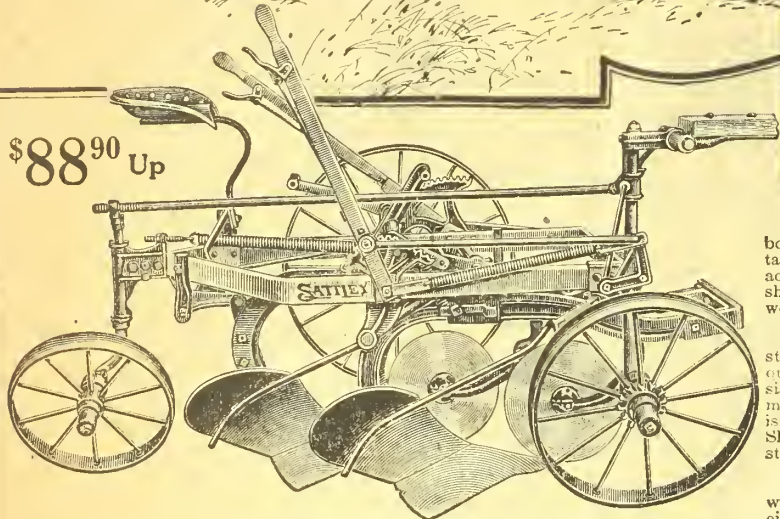
Equalizer Gives Furrow Horse More Room

The Sattley equalizer gives the furrow horse more room. This prevents the rub of the tugs and side straining which tires the furrow horse and naturally results in tendency on his part to lag and thereby cause imperfect plowing.

Hinged Arm for Steering Rod Prevents "Side Thrust"

The Steering Rod attached to the tongue post clings closely to the side of the post, when plowing straight ahead, thus throwing the pressure of the rear wheel directly against the post.

In turning around in either direction, this hinged arm swings out automatically at right angles with the tongue post, bringing the rear wheel around in exact time with the front one and then drops back against the tongue post as before, locking the rear wheel rigidly in position in the corner of the furrow.



\$88⁹⁰ Up

Perfect Suction at Any Depth

An adjustable connecting rod keeps the plow bottom in proper relation to the bail, thereby maintaining the perfect suction of the bottoms. This rod is adjustable so that the suction can be adjusted as the shares become worn, making it possible to do perfect work even as the plow wears from long, hard service.

Bottoms

Shares and moldboards of highest grade soft center steel especially tempered to produce good scouring qualities. Sattley bottoms have double shin which consists of a piece of high carbon steel welded on top of moldboard to give added wearing qualities. This shin is about 25 per cent larger than that on other plows. Share is reinforced by having a piece of high carbon steel welded on top of the point.

Sattley Rolling Coulter

Tempered Steel Blade of best quality, equipped with long malleable hubs riveted by wide flanges to either side. The hubs on each side are 2 1/4 inches long, having a greater bearing than most coulters.

Prices Sattley Riding Plows

| Article Number | Cut Inches | Sbip. Wt. Lbs. | Style | Price | Extra Shares Article No. 289 E 173 | |
|----------------|------------|----------------|----------------------------------|---------|------------------------------------|------------|
| | | | | | Share Number | Price Each |
| 289 E 551 | Two-12's | 730 | Right Hand Stubble Gang | \$82.90 | X12 | \$3.50 |
| 289 E 552 | Two-14's | 740 | Right Hand Stubble Gang | 91.00 | X14 | 4.15 |
| 289 E 553 | Two-12's | 735 | Right Hand Turf & Stubble Gang | 89.75 | X12 | 3.50 |
| 289 E 554 | Two-14's | 745 | Right Hand Turf & Stubble Gang | 91.65 | X14 | 4.15 |
| 289 E 561 | Two-12's | 735 | Left Hand Turf & Stubble Gang | 90.00 | X12LH | 3.50 |
| 289 E 562 | Two-14's | 740 | Left Hand Turf & Stubble Gang | 92.00 | X14LH | 4.15 |
| 289 E 571 | 14 | 472 | Right Hand Stubble Sulky | 63.50 | X14 | 4.15 |
| 289 E 572 | 16 | 477 | Right Hand Stubble Sulky | 64.35 | X16 | 4.50 |
| 289 E 573 | 14 | 475 | Right Hand Turf & Stubble Sulky | 65.50 | X14 | 4.15 |
| 289 E 574 | 16 | 480 | Right Hand Turf & Stubble Sulky | 66.40 | X16 | 4.50 |
| 289 E 578 | 14 | 475 | Left Hand Turf & Stubble Sulky | 65.75 | X14LH | 4.15 |
| 289 E 579 | 16 | 480 | Left Hand Turf and Stubble Sulky | 66.50 | X16LH | 4.50 |

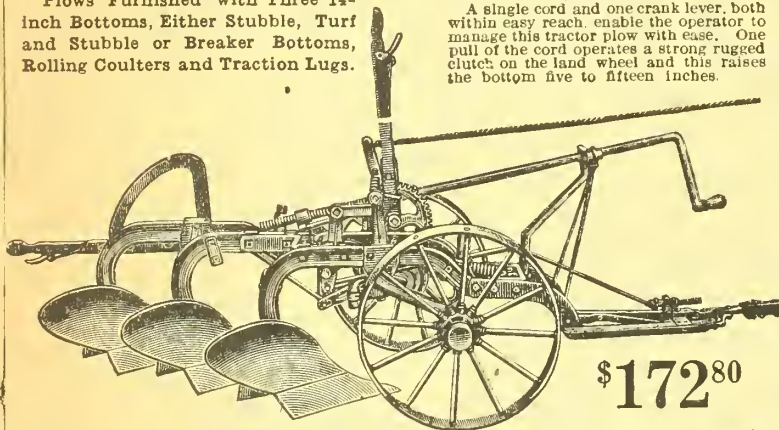
289 E 567—12-in. Prairie Breaker Bottom—Right Hand Only—including Extra Share. Per Bottom..... \$14.50
 289 E 568—14-inch Prairie Breaker Bottom—Right Hand Only—including Extra Share. Per Bottom..... 15.50
 289 E 569—16-inch Prairie Breaker Bottom—Right Hand Only—including Extra Share. Per Bottom..... 16.00
 For 5-Horse Abreast Eveners in place of 4-Horse Evener, Extra..... 2.70
 For 5-Horse Strung-Out Evener in place of 4-Horse Evener, Extra..... 3.60

Shipped from Factory at Springfield, Ill.

Plows Furnished with Three 14-inch Bottoms, Either Stubble, Turf and Stubble or Breaker Bottoms, Rolling Coulters and Traction Lugs.

Ideal One Man Outfit

A single cord and one crank lever, both within easy reach, enable the operator to manage this tractor plow with ease. One pull of the cord operates a strong rugged clutch on the land wheel and this raises the bottom five to fifteen inches.



\$172⁸⁰

Sattley Tractor Gang Plows

Universal hitch fits any tractor. Adjustable up and down or side to side.

With the rigid form of hitch, these plows may be backed by the engine when circumstances make it necessary to do so. This is also helped by the fact that these plows carry no caster wheel in the rear.

By means of a hand lever, one bottom may be raised when only two bottoms are to be used in extra deep plowing, or when soil conditions render traction for engine below normal. In raising or lowering plow, no adjustment of hitch is necessary.

Stubble and turf and stubble bottoms made of soft center steel. Breaker bottoms are solid steel.

Maximum strength is secured with the least possible weight. The entire weight of the plow is directly above the bottom, which insures an even depth in the most stubborn soil.

Unusual clearance. One very striking feature is the remarkable clearance under the beams which makes it practically impossible for trash or stalks to accumulate and clog the bottom.

The new system of bracing and reinforcing the beams with heavy, high carbon steel, removes nearly all strain from the bolts. All bolts are extra large and lock-washed. Weight, about 1050 pounds.

| | | | |
|---|----------|---------------|--------|
| 289 E 501—Three Stubble Bottoms. Price..... | \$172.80 | Extra Share.. | \$5.70 |
| 289 E 502—Three Turf and Stubble Bottoms. Price..... | 173.70 | Extra Share.. | 5.70 |
| 289 E 505—Three Breaker Bottoms with extra shares. Price.. | 173.50 | Extra Share.. | 4.35 |
| 289 E 515—Two Stubble Bottoms. Price..... | 137.50 | Extra Share.. | 5.70 |
| 289 E 508—Two Turf and Stubble Bottoms. Price..... | 138.00 | Extra Share.. | 5.70 |
| 289 E 507—Set of 3 Weed Hooks, Extra..... | | | 2.70 |
| 289 E 519—Set of 2 Weed Hooks, Extra..... | | | 1.80 |
| 289 E 510—3 Jointer Coulters in place of regular Coulters, Extra..... | | | 18.30 |
| 289 E 518—2 Jointer Coulters in place of regular Coulters, Extra..... | | | 12.20 |

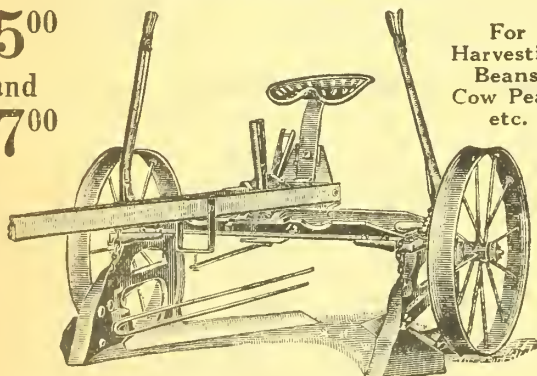
Shipped from Factory at Springfield, Ill.

Bean Harvester

Wood Frame or Steel Frame

\$25⁰⁰
and
\$27⁰⁰

For
Harvesting
Beans,
Cow Peas,
etc.



For harvesting beans, cow peas, etc. Furnished in either wood or steel frame. Is extra strong throughout. Wheels 30 inches high, 4-inch concave face. Wheels track, 4 feet, 10 inches outside to outside edge of tires. Can be set out to track 5 feet 4 inches. This, together with the adjustment of the blades, makes the machine adaptable for rows of any practical width.

Axes are cone shaped and protected from dust by cap. Cleaners are steel rods attached to the guards. Blades are best extra heavy tempered steel beveled and sharpened at cutting edge and highly polished.

Each harvester furnished with evener bar and neckyoke. Shipping weight, about 500 pounds.

287 E 1091—Wood frame Bean Harvester. Price..... \$25.00
 287 E 1092—Steel frame Bean Harvester. Price..... 27.00

Shipped from Missouri Warehouse.

Sattley Walking Plows

\$15²⁵ Up



Sattley Plow Bottoms

No stronger bottom has ever been put on a plow than you find on the Sattley. Built especially to get good scouring qualities.

Sattley Stubble Plow: For plowing in stubble land, or old ground and particularly efficient in weedy, trashy land. The easy turn of the moldboard inverts the furrow in such a manner as to cover trash perfectly and leave land level.

Sattley Turf and Stubble Plows: An all-around general purpose plow. Very satisfactory in clover sod, grass, etc. The long graceful curve of the moldboard lays the sod flat in even regular laps, which presents an excellent surface for harrowing. Also used for work in old ground.

| Article Number | Size Cut Inches | Style | Ship. Wt. Lbs. | Price | Extra Shares Article No. 289 E 173 | |
|----------------|-----------------|------------------------------|----------------|---------|------------------------------------|--------|
| | | | | | Share No. | Price |
| 289 E 601 | 12 | Turf and Stubble, Right Hand | 112 | \$16.35 | X12W | \$3.55 |
| 289 E 602 | 14 | Turf and Stubble, Right Hand | 115 | 18.25 | X14W | 3.95 |
| 289 E 603 | 16 | Turf and Stubble, Right Hand | 120 | 20.50 | X16W | 4.45 |
| 289 E 605 | 12 | Stubble, Right Hand | 108 | 15.25 | X12W | 3.55 |
| 289 E 606 | 14 | Stubble, Right Hand | 111 | 17.25 | X14W | 3.95 |
| 289 E 607 | 16 | Stubble, Right Hand | 118 | 19.50 | X16W | 4.45 |
| 289 E 611 | 12 | Turf and Stubble, Left Hand | 112 | 18.00 | X12WLH | 3.55 |
| 289 E 612 | 14 | Turf and Stubble, Left Hand | 115 | 20.00 | X14WLH | 3.95 |
| 289 E 613 | 16 | Turf and Stubble, Left Hand | 120 | 22.25 | X16WLH | 4.45 |

Shipped from Factory at Springfield, Ill.

Sattley Manure Spreader Pays Big Profit Return

Special Features

EASY to load—only 42 inches to top of box. Bolster reinforced with extra heavy steel bar. Heavy spring on end of gear lever rod acts as shock absorber when starting suddenly, or if anything should get into the beater and stop it. Square shafts prevent sprockets slipping. Frame always lined up—can't twist if one wheel drops down—front truck forms third point of support. All working parts built on steel frame so they can't get out of line, if wood box warps or breaks (see illustration at bottom of page). Cut-under front wheels allow short turning. High arch front axle and exceptionally large fifth wheel with cup for hard oil. Wide Turn-over seat.

Specifications

Width of Track—Front wheels, 28-inch; rear wheels, 61 inches; outside to outside rear wheels, 72 inches. Wheels—Front wheels, 28 inches diameter with 4 1/2-inch face. Rear wheels, 40 inches diameter with 5 1/2-inch face. Size of Box—Height, 17 inches; width, 40 inches, length, 10 feet, 6 inches. Capacity—60 to 65 bushels. 70 bushels if well loaded. Beater—All Steel. Moves fast enough to thoroughly pulverize the manure. Distributor Blades—All steel paddles catch manure thrown from beater and spread it to a width of 6 or 7 feet, or 6 inches beyond track of spreader. Trucks—All steel. Malleable iron castings. Seat—Large and roomy. Tips forward out of way. Conveyor—Two Styles. The endless slat apron of closely spaced, narrow wood slats or the tight bottom with steel conveyor. Feed—4 Adjustments. Equipment—Combination two and three-horse steel equalizer with each machine. It is all steel except the single trees.

Sprockets Cannot Slip

The apron shafts, beater shafts, and wide-spread distributor shafts are of square or hexagon steel to which the parts are carefully broached and fitted, doing away with keys and keyways which often cause trouble. Ratchet and sprocket wheels are easily and quickly removed by withdrawing cotter pin. With keyways it is often very hard to remove wheels—while set-screws slip and cause trouble. Malleable Castings—We are using malleable and steel castings instead of the clumsy gray iron castings wherever possible so as to reduce the weight of the spreader and make it stronger.

This large illustration shows Endless Slat Apron bottom.

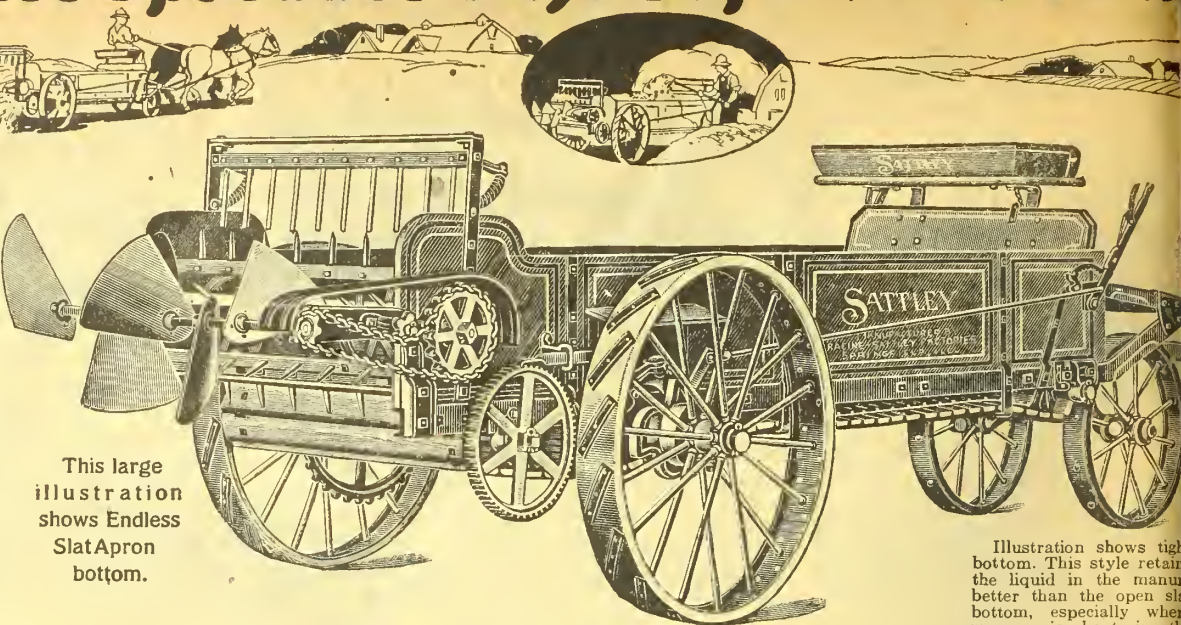
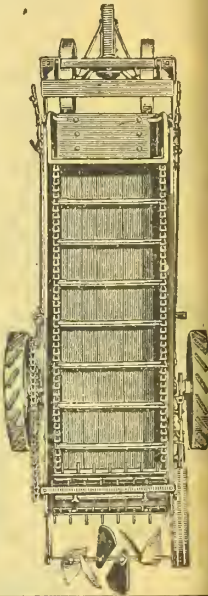


Illustration shows tight bottom. This style retains the liquid in the manure better than the open slat bottom, especially where manure is kept in the machine several days while a full load is being accumulated.

Low Down, Wide Spread, Light-Draft

ENDLESS Apron With Smooth, Even Drive. Its construction is simple, carries the load perfectly and distributes the fertilizer evenly. The apron slats are linked together with heavy malleable chain, making an endless and almost solid bottom. The screw adjustment at the front end of the apron reduces friction by getting the right tension on the apron. Binding of the apron is unknown on the Sattley. The strong, all-steel construction prevents this. Combination 2 and 3-Horse Evener—The Sattley all-steel equalizer does away with the troublesome set-over pole method of hitching. Can easily be changed from 3-horse to 2-horse. The narrow turn-under front truck enables the operator to turn the spreader in its own length. This is a great advantage when loading and getting in and out of barn yards. Wide-Spread Distributor. It requires only a few minutes to attach or detach the wide-spread distributor. All you do is to bolt the wide-spread arms to the main frame with four heavy bolts. The paddles are set at the proper angle to distribute the manure to a total spread of between 6 and 7 feet, about six inches on each side of the rear wheel track. You don't have to drive over the spread manure

in order to cover the entire field, but stay away from the outside edge of the last strip at least 6 inches and get the field covered evenly. The Sattley wide-spread has no equal for top-dressing growing corn. All Steel Frame Construction. Every piece of mechanism is built on the steel frame. There is not a piece of wood in the underframe and the all-feed mechanism is mounted on the steel parts, insuring their always holding in line, regardless of what the weather and many years of hard use may eventually do to the wood parts of the box. The force feed and all other moving parts are built on the steel frame. This keeps the bearings in line and makes light draft even after the wood box is warped and worn from long, hard usage. The frame consists of two extra heavy channel steel side sills rigidly braced with trussed channel steel cross members. The cross members are securely fastened to the side sills by means of wrought steel corner brackets. Added strength is given by two diagonal braced rods that are fastened to the frame. Conveyor—Two Styles—The endless slat apron bottom, as shown in large illustration, is made of closely spaced, narrow wood slats. The tight bottom, as shown in small illustration, has steel conveyor which is chain driven on both sides.



| | |
|--|----------|
| 289 E 1275—Sattley Spreader, slat bottom, with combination 2 and 3-horse equalizer but without wide-spread distributor. Shipping weight, 1,550 pounds. | \$159.75 |
| 289 E 1276—Same as above but with wide-spread distributor. Shipping weight, 1,750 pounds. | 174.00 |
| 289 E 1273—Sattley Spreader, tight bottom with combination 2 and 3-horse equalizer but without wide-spread distributor. Shipping weight, 1,550 pounds. | 165.50 |
| 289 E 1274—Same as above but with wide-spread distributor. Shipping weight, 1,750 pounds. | 179.00 |
| 289 E 1277—Extra for wide-spread distributor to fit Sattley Spreader. Shipping weight, 200 pounds. | 14.25 |

Shipped from our Factory at Springfield, Illinois.

Easy Payment Order Blank for Sattley Engines and Separators

If it is more convenient for you to pay in monthly installments we will ship Engines or Separators to you on easy monthly payments. No deposit is necessary at the time of ordering. You get the use of your purchase while paying for it. You give it a chance to earn its own cost and more before you pay.

Take advantage of this liberal Easy Payment Plan Now. Write plainly and carefully and please answer all questions. All information given us will be regarded as confidential. Be sure to answer all questions on bottom of page.

Sattley Engines or Cream Separators—No Money Down 10 EQUAL MONTHLY PAYMENTS 1st PAYMENT AFTER 30 DAYS' TRIAL MONTGOMERY WARD & CO., CHICAGO: You may ship me the following goods for 30 days' trial

| Article Number | Quantity | Size | DESCRIPTION | Price Each | Extend Here |
|----------------|----------|------|-------------|------------|-------------|
| | | | | | |
| | | | | | |
| | | | | | |

Thirty days after receiving the shipment, if the outfit has proven satisfactory during the trial period, I will pay you one-tenth of the total amount, or \$_____ and will pay you the same amount each succeeding month until the full purchase price has been paid. Then the outfit will become my property. Should I be dissatisfied with the outfit I agree to notify you within thirty days after receiving the shipment and you are then to send me shipping instructions for its return at your expense. You are also to send me the freight charges I have paid.

Sign Here _____ Sign your name plainly and carefully. R. F. D. _____ Box _____ Street No. _____
Postoffice _____ County _____ State _____
Shipping Point _____ County _____ State _____

(Please be sure to fill out this Form before you mail your order)

I desire to make it plain to you that I am worthy of your confidence and I make the following answers for the purpose of having you ship me the goods ordered herein on the above conditions. How long have you lived at your present address _____ If less than 5 years give former address _____

Married or Single _____ Age _____ Business or Occupation _____

If farming how many acres _____ What crops do you raise _____

Do you own or rent _____ If renting, give name of landlord _____

Value of farm if owned _____ Amount of Mortgage _____ What is your net worth above debts _____

Income last year _____ What is the age of your oldest debt _____

How is your farm stocked. Machinery _____ Horses _____ Cattle _____ Hogs _____ Sheep _____
Give value _____ No. Head _____ No. Head _____ No. Head _____ No. Head _____

Give the Names of Two References. Banks or Merchants Preferred.

| Name | Address | Business |
|------|---------|----------|
| | | |
| | | |

You may send us a letter from your banker, recommending this credit, instead of giving above information, if you would rather do so.

Repair Your Farm Machinery NOW

Farm Machinery Repairs



Sattley Plow Shares



We carry a large stock of Sattley plow shares and will ship promptly. These shares, made of our Sattley factory, are perfect fitting. When ordering, be sure to give article number and exact figures and letters on the back of old share. Sattley shares are made both right and left hand and we will always ship right hand unless otherwise ordered.

289 E 171—Solid Steel Shares.

| Price | Price |
|------------------|------------------|
| C12WC.....\$2.75 | D112W.....\$2.65 |
| C14WC.....3.00 | D114W.....2.95 |
| C16WC.....3.50 | NB12.....2.50 |
| D8W.....1.70 | NB14.....2.60 |
| D9W.....1.85 | NB16.....3.40 |
| D10W.....2.00 | |

289 E 173—Soft Center Steel.

| Price | Price |
|-----------------|---------------------|
| C12W.....\$3.55 | X16.....\$4.50 |
| C14W.....3.95 | 74W14.....5.05 |
| C16W.....4.45 | 186 or F16.....5.55 |
| D9W.....4.55 | 181 or F12.....5.55 |
| D10W.....5.10 | 182 or F14.....5.55 |
| C14.....3.50 | 64W16.....6.10 |
| C12.....4.15 | 69W16.....5.95 |

289 E 175—Sattley Engine Plow Shares.

| Price | Price |
|-----------------|-------------------|
| C14E.....\$5.70 | ARB14E.....\$4.35 |
| F14E.....5.70 | |

Ship. weight same as Finished and Fitted Shares. Shipped from Chicago or Springfield, Ill.

Hay Rake Teeth

Made of carefully tempered steel and are of the regulation size and shape. Will fit the following rakes: McCormick, Deering, Osborne, Champion, Plano, and Bob White. In ordering be certain to state the name of rake that teeth are to be used on. Also state whether the crook is to the right or the left, and send a full sized sketch on paper. Unless you give us this information, we cannot fill the order. We cannot supply any except the styles as given above. Shipping weight, 2 pounds.

87 E 24—Single bend. Price, ea. 25c
87 E 28—Double bend. Price, ea. 30c

Link Chain Belting



| Size No. | Shp. Wt. Per Ft. | Links Per Foot | Working Strain | Price Per Foot |
|----------|------------------|----------------|----------------|----------------|
| 87 E 207 | 25 | 4 oz. | 1.3 | 75 lbs. |
| 87 E 209 | 32 | 5 oz. | 10.4 | 150 lbs. |
| 87 E 211 | 33 | 5 oz. | 8.6 | 225 lbs. |
| 87 E 213 | 34 | 6 oz. | 8.6 | 225 lbs. |
| 87 E 215 | 35 | 7 oz. | 7.4 | 250 lbs. |
| 87 E 217 | 42 | 9 oz. | 8.8 | 300 lbs. |
| 87 E 219 | 45 | 9 oz. | 7.4 | 350 lbs. |
| 87 E 220 | 52 | 12 oz. | 8.0 | 400 lbs. |
| 87 E 222 | 55 | 12 oz. | 7.4 | 450 lbs. |
| 87 E 224 | 62 | 16 oz. | 7.3 | 650 lbs. |
| 87 E 226 | 72 | 2 lbs. | 5.9 | 800 lbs. |
| 87 E 228 | 1072 | 2 lbs. | 7.3 | 870 lbs. |

For use on mowers, binders, corn shellers, feed cutters, etc. When ordering chain for repairs, also be sure to give number of chain, also lay one link on paper and mark around outside and inside with pencil, showing size and shape of links.

Finished and Fitted Plow Shares



With Bolts Ready to Attach

Right-hand shares only as listed below. When ordering give article number, size of share wanted, name or make of plow, and all marks on back of old share. Ship. wt. of 12-in. shares, 10 1/2 lbs.; of 14-in. shares, 12 lbs.; of 16-inch shares, 13 lbs.

Mark Plainly Article Number at top of Price Column and Marks on Shares.

| Marks on Share | Size In. | Thick-ness Inches | Article 187E76 Soft Center Price | Number 187E77 Solid Steel Price |
|----------------|----------|-------------------|----------------------------------|---------------------------------|
|----------------|----------|-------------------|----------------------------------|---------------------------------|

Climax—Right Hand

| | | | | |
|-----------|----|------|--------|-------|
| R-12..... | 12 | 5/16 | \$3.50 | ..... |
| R-14..... | 14 | 5/16 | 4.30 | ..... |
| R-16..... | 16 | 5/16 | 4.30 | ..... |

Bradley—Right Hand

| | | | | |
|---------------|----|------|--------|--------|
| L45..... | 14 | 1/2 | \$3.73 | \$2.63 |
| L79..... | 16 | 1/2 | 4.15 | 2.94 |
| 19-1478X..... | 14 | 5/16 | 3.98 | 2.82 |

Canton or P. and O.—Right Hand

| | | | | |
|----------|----|------|--------|--------|
| 54..... | 16 | 1/2 | \$4.15 | \$2.94 |
| 42..... | 14 | 1/2 | 3.73 | 2.63 |
| 268..... | 14 | 1/2 | 3.73 | 2.63 |
| 268..... | 16 | 5/16 | 4.30 | 3.05 |

Case—Right Hand

| | | | | |
|-------------|----|------|--------|--------|
| A D L..... | 16 | 5/16 | \$4.40 | \$3.10 |
| SGL 12..... | 12 | 5/16 | 3.50 | 2.55 |
| SGL 14..... | 14 | 5/16 | 3.98 | 2.82 |
| SGL 16..... | 16 | 5/16 | 4.30 | 3.05 |

Deere—Right Hand

| | | | | |
|-----------|----|------|--------|--------|
| F 33..... | 14 | 1/2 | \$3.73 | \$2.63 |
| P 33..... | 14 | 1/2 | 3.98 | 2.82 |
| 40..... | 16 | 1/2 | 4.15 | 2.94 |
| X 42..... | 14 | 5/16 | 4.40 | 3.10 |
| 33..... | 14 | 1/2 | 3.73 | 2.63 |
| 33..... | 16 | 1/2 | 3.98 | 2.82 |
| 31..... | 12 | 1/2 | 4.30 | 3.05 |
| 42..... | 14 | 1/2 | 3.73 | 2.63 |
| 42..... | 14 | 5/16 | 3.98 | 2.82 |
| 46..... | 16 | 1/2 | 4.15 | 2.94 |
| 46..... | 16 | 5/16 | 4.30 | 3.05 |
| 152..... | 12 | 5/16 | 3.98 | 2.82 |
| 162..... | 16 | 5/16 | 4.40 | 3.10 |
| 215..... | 12 | 5/16 | 3.63 | 2.60 |
| 217..... | 14 | 5/16 | 3.98 | 2.82 |
| 218..... | 16 | 5/16 | 4.40 | 3.10 |

Defiance or La Crosse—Right Hand

| | | | | |
|---------|----|------|--------|--------|
| 97..... | 12 | 5/16 | \$3.50 | \$2.55 |
| 97..... | 14 | 5/16 | 3.73 | 2.63 |
| 92..... | 16 | 5/16 | 4.15 | 2.94 |

Emerson—Right Hand

| | | | | |
|-------------|----|------|--------|--------|
| N-14-R..... | 14 | 5/16 | \$3.73 | \$2.63 |
| N-14-R..... | 14 | 5/16 | 3.98 | 2.82 |
| N-16-R..... | 16 | 5/16 | 4.15 | 2.94 |
| N-16-R..... | 16 | 5/16 | 4.40 | 3.10 |

Moline—Right Hand

| | | | | |
|-------------|----|------|--------|--------|
| C 1..... | 14 | 1/2 | \$3.73 | \$2.63 |
| F D 11..... | 16 | 1/2 | 4.15 | 2.94 |
| F D 1..... | 14 | 1/2 | 3.73 | 2.63 |
| F D 1..... | 16 | 1/2 | 3.98 | 2.82 |
| D 1..... | 14 | 1/2 | 3.73 | 2.63 |
| D 10..... | 16 | 1/2 | 4.15 | 2.94 |
| CY 12..... | 12 | 5/16 | 3.63 | 2.60 |
| CY 14..... | 14 | 5/16 | 3.98 | 2.82 |
| CY 16..... | 16 | 5/16 | 4.40 | 3.10 |
| DW 12..... | 12 | 5/16 | 3.98 | 2.82 |
| DW 14..... | 14 | 5/16 | 3.98 | 2.82 |
| DW 16..... | 16 | 5/16 | 4.40 | 3.10 |

Oliver—Right Hand

| | | | | |
|-----------|----|-----|--------|--------|
| 8..... | 16 | 1/2 | \$4.15 | \$2.94 |
| 8..... | 14 | 1/2 | 3.73 | 2.63 |
| DS 8..... | 14 | 1/2 | 3.73 | 2.63 |
| DS 8..... | 16 | 1/2 | 4.15 | 2.94 |

Rock Island—Right Hand

| | | | | |
|---------|----|------|--------|--------|
| 40..... | 16 | 5/16 | \$4.40 | \$3.10 |
| 32..... | 14 | 5/16 | 3.98 | 2.82 |
| 68..... | 14 | 5/16 | 3.98 | 2.82 |
| 70..... | 16 | 5/16 | 4.40 | 3.10 |

Binder and Reaper Sections Serrated



Standard in quality and size. Put up in boxes of 20 sections with rivets. When ordering give name of machine and size of section. Ship. wt. about 3 lbs.

87 E 84—Price, per box \$1.10

| | | |
|------------------|---|--------|
| box of 20..... | 3 | x3 |
| Champion..... | 3 | x2 3/4 |
| Champion..... | 3 | x2 3/4 |
| Deere-Dalme..... | 3 | x2 3/4 |
| Deering..... | 3 | x2 3/4 |
| McCormick..... | 3 | x2 3/4 |
| Milwaukee..... | 3 | x2 3/4 |
| Osborne..... | 3 | x2 3/4 |
| Plano..... | 3 | x2 3/4 |
| Wood..... | 3 | x2 3/4 |

Malleable Knife Guards



We carry a large stock to fit the well known machines. Give name of machine and number and letter on the old guard. Weight, 1 1/2 pounds.

87 E 98—Price, with guard plate attached, 24c

| | | | |
|-------------------------|--------------|-------------------------|-------|
| Acme..... | T2 | McCormick..... | MD989 |
| Buckeye..... | 775 | McCormick..... | HA495 |
| Champion..... | A811 | Milwaukee..... | S37 |
| Champion..... | A881 | Milwaukee..... | PK5 |
| Champion..... | A881 | Moline-Adriance..... | 3087D |
| Deere-Dalme..... | Z1 | Moline-Adriance..... | 3087E |
| Deering..... | 286 | Osborne..... | K514 |
| Deering..... | P 1/2 or D42 | Osborne..... | K790 |
| Deering..... | D698 | Osborne..... | K790 |
| Emerson (Standard)..... | H or M504 | King of the Meadow..... | K |
| Emerson (Standard)..... | M527 | Plano or Jones..... | J136 |
| Emerson (Standard)..... | M527 | Plano or Jones..... | J386 |
| Champion..... | 1811 | Wood..... | 1810 |
| McCormick..... | MA462 | Wood..... | PP |
| McCormick..... | MA989 | Wood..... | L |

Knife Heads



For the well known makes of Mower or Reaper. Either malleable or steel head. Give name of the machine, number and letter on the head, and if no number, a carefully pencilled drawing with all description possible. Average Wt. 1 1/2 lbs.

87 E 96—Malleable Head..... 37c

| | | | |
|-------------------------|-------|----------------------|------|
| Acme..... | T6 | Milwaukee..... | PG6 |
| Acme..... | A415 | Milwaukee..... | S34 |
| Champion..... | A870 | Moline-Adriance..... | 557F |
| Deere-Dalme..... | Z45 | Osborne..... | K774 |
| Deering..... | D463 | Osborne..... | K284 |
| Deering..... | D920 | Plano..... | J94 |
| Emerson (Standard)..... | M203 | Wood..... | J429 |
| King of the Meadow..... | M203 | Wood..... | 1810 |
| (Elwood)..... | M139 | Wood..... | 1680 |
| McCormick..... | MA989 | Wood..... | 2862 |

87 E 97—Steel heads, Deering F123 and Buckeye 864. Each..... 49c

Mower Knives



Tempered Steel. Ground Knives, complete with head. Can be furnished to fit any of the well known makes. Odd knives can be shipped direct from factory, purchaser paying charges. Be sure to give name of the machine and number and letter on the old knife head. If you cannot give number, send sketch of the old head; also give size of the sections.

187 E 90—Smooth, 4 1/2-ft. knife, 18 sections. Shipping weight, 10 pounds. Price..... \$2.25

| | | | |
|-------------------------|------|---------------------|------|
| Champion..... | A415 | McCormick..... | M139 |
| A415 have sections | PG6 | Milwaukee..... | K284 |
| 3x3 3/4 inch only..... | D463 | Osborne..... | K774 |
| Deering..... | F123 | Plano or Jones..... | J94 |
| Deering..... | F123 | Wood..... | J810 |
| King of the Meadow..... | 9 | Wood..... | 1810 |

187 E 92—Smooth, 5-foot knife, 20 sections. Shipping weight, 11 pounds. Price..... \$2.35

| | | | |
|-------------------------|------|-------------------------|------|
| Acme..... | T6 | King of the Meadow..... | 9 |
| Buckeye..... | 564 | (Elwood)..... | |
| Champion..... | A415 | McCormick..... | M139 |
| A415 have sections | PG6 | Milwaukee..... | K284 |
| 3x3 3/4 inch only..... | D463 | Moline-Adriance..... | 557F |
| Champion..... | A870 | Osborne..... | K284 |
| Deere-Dalme..... | Z45 | Osborne..... | K284 |
| Deering..... | F123 | Plano-Jones..... | J429 |
| Deering..... | D920 | Wood..... | 1810 |
| Emerson (Standard)..... | M203 | Wood..... | 1680 |
| Emerson (Standard)..... | M203 | Wood..... | 2862 |

187 E 94—Smooth, 6-foot knife, 24 sections. Shipping weight, 13 1/2 pounds. Price..... \$2.50

| | | | |
|------------------------|------|-------------------------|------|
| Champion..... | A415 | Emerson (Standard)..... | M203 |
| A415 have sections | PG6 | King of the Meadow..... | 9 |
| 3x3 3/4 inch only..... | D463 | (Elwood)..... | |
| Champion..... | A870 | McCormick..... | M139 |
| Deere-Dalme..... | Z45 | Milwaukee..... | PG6 |
| Deering..... | F123 | Moline-Adriance..... | 557F |
| Deering..... | D920 | Plano-Jones..... | J94 |

Guard Plates



High quality steel. Give name of machine, number and letter on guards and send a paper pattern with size of plate showing the position of rivet hole. We do not break boxes. Wt., per box, 2 lb.

87 E 86—Price, per box of 20 with Rivets..... 82c

To Fit the Following Guards

| | | | |
|-------------------------|------------|------------------|-----------|
| Acme..... | T2 | McCormick | MA462 |
| Buckeye..... | 775 | M804 | |
| Champion..... | A811 | Milwaukee | S37-PK5 |
| Champion..... | A881-AA881 | Moline-Adriance | 3087D |
| Deere-Dalme..... | Z1 | Moline-Adriance | 3087E |
| Deering..... | D42 | Osborne..... | K514 |
| Deering..... | D698 | Osborne..... | K790 |
| Emerson..... | M-504 | Osborne..... | K280 |
| Emerson..... | M-527 | Plano-Jones | J110 |
| Johnston..... | 1071-1811 | Plano-Jones | J136-J386 |
| King of the Meadow..... | K | Plano-Jones..... | J-568 |
| (Elwood)..... | | Wood..... | A |
| McCormick | MA989 | Wood..... | PP |
| McCormick | MA989 | Wood..... | PP |
| McCormick | HA-495 | Wood..... | PP |

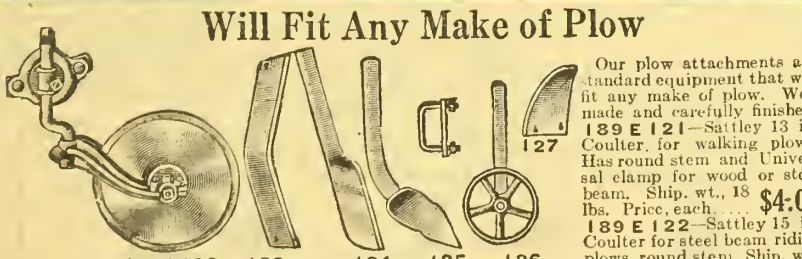
Smooth Mower Sections

Oil tempered, steel sections, standard in quality and size. Put up in boxes of 20 sections with 40 rivets. We do not break boxes. Give name of machine and size of section.

87 E 82—Box 20 sections with rivets. Average weight, 3 lbs..... \$1.05

| Size Inches | Size Inches | Size Inches |
|---------------------------|--------------------------------------|------------------------------|
| Acme..... 3x3 3/4 | Emerson..... 3x3 3/4 | Moline-Adriance..... 3x3 3/4 |
| Buckeye..... 3x3 3/4 | Johnson..... 3x3 3/4 | Osborne, H. P..... 3x3 |
| Buckeye H. P..... 3x3 3/4 | Johnson..... 3x3 3/4 | Osborne..... 3x3 3/4 |
| Champion..... 3x3 3/4 | King of Meadow (Elwood)..... 3x3 3/4 | Plano..... 3x3 3/4 |
| Champion..... 3x3 3/4 | McCormick..... 3x3 3/4 | Plano..... 3x3 3/4 |
| Deere-Dalme..... 3x3 3/4 | McCormick..... 3x3 3/4 | Wood..... 3x3 3/4 |
| Deering..... 3x3 3/4 | Milwaukee..... 3x3 3/4 | Wood..... 3x3 3/4 |

Plow Attachments



Will Fit Any Make of Plow

| | | | | |
|---|--|---|---|--|
| 89 E 123—Quincy Cutter. Furnished with clamp and fits wood or steel beam. Ship. wt., 9 lbs. Price, each..... \$1.75 | 89 E 124—Hanging Cutter. Furnished with clamp. Fits either wood or steel beam. Ship. wt., 9 lbs. Price, each..... \$1.89 | 89 E 125—Steel Jointer. Furnished with clamp to fit steel beam only. Ship. wt., 15 lbs. Price, each..... \$2.70 | 89 E 126—Gauge Wheel. Has 8 in. wheel and clamp, fits either wood or steel beam. Ship. wt., 11 lbs. Price, each..... \$1.50 | 89 E 127—Fin Cutter, bored with holes to fit Sattley plows. Ship. wt., 4 lbs. Price, each..... .98 |
|---|--|---|---|--|

Plow Bolts



High quality steel plow bolts. Standard in size and shape. With forged nuts. The illustration represents the styles now in general use. No. 1 being key head pattern and No. 3 round head with square shank. Diam., 3/4 in. When ordering be sure to state length wanted. Average ship. wt., per dozen, 1/2 lb.

87 E 101—Style No. 1.

| Length | Per Dozen |
|-------------------|-----------|
| 1 1/4 inches..... | 17c |
| 1 3/4 inches..... | 19c |
| 1 7/8 inches..... | 21c |
| 2 1/4 inches..... | 23c |

87 E 102—Style No. 3.

| Length | Per Dozen |
|-------------------|-----------|
| 1 1/4 inches..... | 18c |
| 1 3/4 inches..... | 20c |
| 1 7/8 inches..... | 22c |
| 2 1/4 inches..... | 24c |

Disc Harrow Blades



Concave disc blades of same quality as used on all standard makes of disc harrows. Made of high-grade, open hearth steel. Three sizes, 16, 18 and 20-inch, all have 1 1/2-inch square hole to fit 7/8-inch haft. Average shipping weights, 7 1/2, 10 1/4, 13 1/4 pounds respectively.

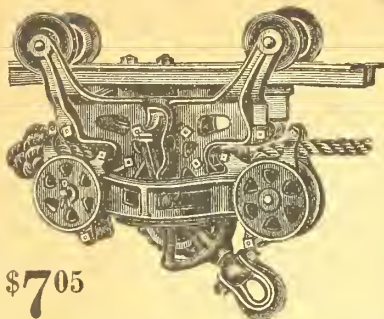
| Article Number | Width Inches | Gauge | Price |
|----------------|--------------|-------|--------|
| 189 E 193 | 16 | 11 | \$1.10 |
| 189 E 194 | 18 | 10 | 1.50 |
| 189 E 195 | 20 | 9 | 1.85 |

Paint For Your Farm Machinery

See Page 747

Ward's Haying Tools Save You Time and Labor

Hay King Large Mouth Carriers

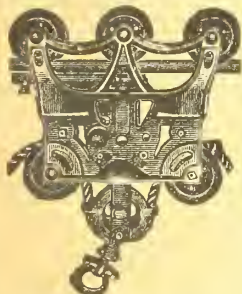


\$7.05

Large, open mouth, allowing fork pulley head to pass well up into car; strain of lock device placed where carrier is strongest, avoiding friction or twisting strain; fork being close to track permits filling space to high point. Double swivel. High-grade malleable iron.

Rope Sheaves take $\frac{1}{4}$ -inch or $\frac{3}{8}$ -inch rope. Fork pulley has loop head, insuring sure lock, and clevis to attach fork. Made in two styles, for regular 4x4 in. dressed wood track, or to run on our steel track. Carrier furnished with pulley for fork and stop. Without Rope, ship. wt., 37 lbs., ea. **\$7.05**
 187E346—For wood track **7.10**
 187E347—For steel track **7.10**
 187E348—Extra stops for wood track **.50**
 187E349—Extra stops for steel track **.52**

Champion Cable Carrier



\$4.95

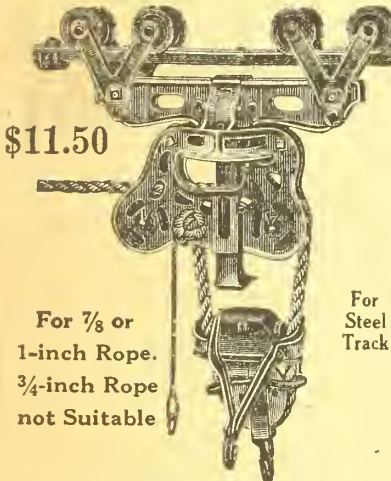
Made Entirely of Malleable Iron

For stacking hay in the field. Is exceptionally strong. Has the Champion automatic trip without springs. Made of malleable iron and will work either way from the

stop without turning on the cable. Furnished with stop to fit either $\frac{1}{2}$, $\frac{3}{4}$ or $\frac{1}{2}$ -in. cable. Fork Pulley with clevis always furnished. (No Rope.) Ship. wt., 30 lbs.

187E355—Price with trip or stop for $\frac{1}{2}$ -inch cable **\$4.95**
 187E356—Stop for $\frac{1}{2}$ -in., $\frac{3}{4}$ -in., or $\frac{1}{2}$ -in. cable (state which). Wt., each, about 2 lbs. **.35c**

Sampson Swivel Sling Carrier



\$11.50

For $\frac{7}{8}$ or 1-inch Rope.
 $\frac{3}{4}$ -inch Rope not Suitable

With our Sampson Carrier, a load may be raised to any point desired and tripped before it reaches stop. This saves time when the space is empty.

Made of malleable iron. Has swivel head. Can be run in either direction without changing ropes on carriers. Has eight track wheels, extra heavy frame that prevents jumping on track. Made to run on steel track. Prices include pulleys and stop, but not rope.

187E361—Steel Track Sling Carrier. Shipping weight, 67 lbs. Price **\$11.50**
 187E363—Extra stop for steel track **.55**

Angle Steel Track



Double Angle Steel Track, in 5 and 10-ft. lengths only; 5-ft. lengths used at ends to break joints. Made of 2 pieces of 1-in. angle steel rail, held together by malleable iron and hook clamps. Ship. wt., about 2 lbs. per foot. Hook clamps are extra. See No. 87E107. Joint clamps included.

187E398—Price, per double foot, including joint clamps only **12c**



Sling Pulley

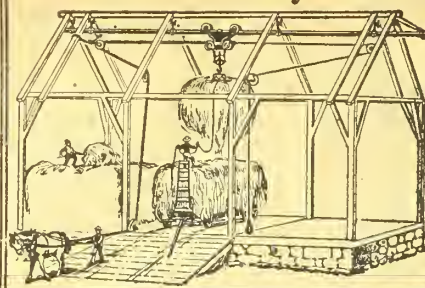
For our Champion or Hay King carriers. Used with our Western or Standard Hay Slings. No rope furnished. Positive lock. Ship weight, 13 $\frac{1}{2}$ lbs. Malleable iron.

187E365—For Champion carriers. With rivet as shown at left. Price **\$3.00**

187E366—For Hay King Carriers. With loop head as shown to the right. Price **\$3.05**

Hay Barn Outfits

\$17.30



Equip your barn with one of these outfits. They are a big saving in labor and time.

The steel track is made of 1-in. angle steel, 2 pieces held together with malleable clamps. Track is cut in 10-ft. length with two 5-ft. pieces to each outfit to break joints. The wood track should be 4x4 in. timber. (We do not furnish the wood track timbers.) Steel Track Outfits—complete with Hay King large mouth steel track carrier, one 25 inch double harpoon fork, 3 floor hooks and 3 knot passing pulleys.

Wood Track Outfits (without track) consist of Hay King large mouth wood track carrier, one 25 inch double harpoon fork, 3 floor hooks and 3 knot passing pulleys. Rafter brackets, hanging hooks and rope are included with every outfit.

| Steel Track Outfit | | | | Manila Rope | | Rafter Brackets | | Article Number Outfit | | Wood Track Outfit | |
|-----------------------|----------------|----------------|---------|-------------------|-------------------|-----------------|-----------------|-----------------------|----------------|-------------------|---------|
| Article Number Outfit | Length of Barn | Ship. Wt. Lbs. | Price | $\frac{1}{4}$ in. | $\frac{3}{8}$ in. | Hanging Hks | Rafter Brackets | Article Number Outfit | Length of Barn | Ship. Wt. Lbs. | Price |
| 187E431 | 30 ft. | 160 | \$21.00 | 90 ft. | 35 ft. | 13 | 13 | 187E441 | 30 ft. | 95 | \$17.30 |
| 187E432 | 35 ft. | 175 | \$22.30 | 100 ft. | 40 ft. | 15 | 15 | 187E442 | 35 ft. | 100 | 17.90 |
| 187E433 | 40 ft. | 190 | \$23.65 | 110 ft. | 45 ft. | 17 | 17 | 187E443 | 40 ft. | 105 | 18.60 |
| 187E434 | 45 ft. | 210 | \$25.00 | 120 ft. | 50 ft. | 19 | 19 | 187E444 | 45 ft. | 110 | 19.30 |
| 187E435 | 50 ft. | 225 | \$26.30 | 130 ft. | 55 ft. | 21 | 21 | 187E445 | 50 ft. | 115 | 20.00 |
| 187E436 | 55 ft. | 240 | \$27.65 | 140 ft. | 60 ft. | 23 | 23 | 187E446 | 55 ft. | 120 | 20.75 |
| 187E437 | 60 ft. | 255 | \$29.00 | 150 ft. | 65 ft. | 25 | 25 | 187E447 | 60 ft. | 125 | 21.45 |

187E427—Add 1 $\frac{1}{2}$ c per foot for $\frac{3}{4}$ -inch in place of $\frac{1}{2}$ -inch rope.

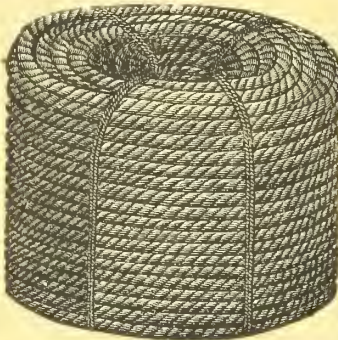
Guaranteed Pure Manila Rope

$\frac{1}{2}$ -inch Size
 13 $\frac{1}{4}$ Ft.

You will find our rope to be full size, flexible and long wearing. Made from high-grade stock and will meet your requirements. We can furnish lengths up to 1200 feet in one coil.

Hawser Laid Pure Manila Rope

Pure Manila, long fiber. Cut to any length. Used as well-drilling cable, etc. Prices on larger sizes quoted upon application. Weight per 100 feet, $\frac{1}{4}$ in., 19 lbs., $\frac{3}{8}$ in., 27 lbs., $\frac{1}{2}$ in., 32 lbs.



187E6264— $\frac{1}{4}$ in. Hawser laid 9 strand. Price, per foot..... **5c**

187E6266— $\frac{3}{8}$ in. Hawser laid 9 strand. Price per foot..... **7 $\frac{1}{2}$ c**

187E6268—1 in. Hawser laid 9 strand. Price, per foot..... **8 $\frac{1}{2}$ c**

Manila Lariat Rope

Pure Manila. Cut to any desired length. Is hard laid, will not kink, and runs well. Weight, per 100 feet, 7 $\frac{1}{2}$ lbs.

187E6270— $\frac{3}{8}$ in., 3 Strand. Price, per foot..... **21 $\frac{1}{4}$ c**

187E6272— $\frac{1}{2}$ in., 4 Strand. Price, per foot..... **2 $\frac{1}{2}$ c**

| Size, In. | 1 $\frac{1}{4}$ | 1 $\frac{3}{8}$ | 1 $\frac{1}{2}$ | 1 $\frac{3}{4}$ | 2 |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Art. No. | 187E6230 | 187E6232 | 187E6234 | 187E6236 | 187E6238 |
| Price, per foot..... | 1 $\frac{1}{2}$ c | 1 $\frac{3}{4}$ c | 1 $\frac{1}{2}$ c | 1 $\frac{1}{4}$ c | 1 $\frac{1}{2}$ c |
| Price, 100 ft. | 45c | 90c | \$1.10 | \$1.60 | \$2.80 |
| Wt. per 100 ft. lbs. | 2 | 4 | 5 | 7 $\frac{1}{2}$ | 13 $\frac{1}{2}$ |

| Size, In. | 3 $\frac{1}{4}$ | 3 $\frac{3}{4}$ | 4 | 4 $\frac{1}{2}$ | 5 |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Art. No. | 187E6240 | 187E6244 | 187E6248 | 187E6252 | 187E6256 |
| Price, per foot..... | 3 $\frac{1}{2}$ c | 4 $\frac{1}{2}$ c | 5 $\frac{1}{2}$ c | 6 $\frac{1}{2}$ c | 8 $\frac{1}{2}$ c |
| Price, 100 ft. | \$3.30 | \$4.75 | \$6.50 | \$7.20 | \$8.45 |
| Wt. per 100 ft. lbs. | 17 | 22 | 27 | 36 | 42 |

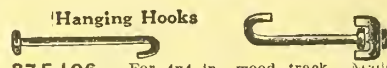
Malleable Rafter Brackets



For use in hanging track. Screws or nails not included. Wt., 5 oz.

187E368—Price, **.6c**

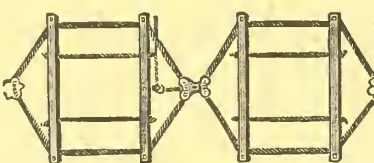
Hanging Hooks



187E106—For 4x4 in. wood track. Made of $\frac{1}{2}$ -in. wrought iron; length, 14 in. after bending. Weight, 12 oz.

187E107—For Our Angle Steel track, complete with clamp; length, 8 $\frac{1}{2}$ in. Wt., 14 oz. Each..... **14c**

Standard Wagon Slings



Not Malleable

A very quick and satisfactory way of handling hay, straw, fodder, etc. Used in connection with sling carriers or our Champion or Hay King sling pulleys in place of hay fork. Cross bars are selected wood, good quality rope, with sure trip-lock. Lock trips easily.

Width of sling, 4 or 5 feet, and can be adjusted from 16 to 20 feet in length, if desired, by adding rope at the end rings.

187E387—4 ft. sling with 4 cross ropes. Ship. wt., 18 lbs. **\$3.15**

187E388—5 ft. sling with 8 cross ropes, as shown. Ship. wt., 22 lbs. Each..... **\$4.45**

187E386—Extra Trip Lock 1 lb..... **1.10**

187E385—Complete Set Sling Irons. (No wood, no rope.) Wt., 3 lbs. **\$1.85**

Western Sling Nets, 6-ft. Bar



Not Malleable

Our western sling nets are made extra strong and much heavier than the standard grade wagon sling. Cross bars are good quality seasoned timber, good quality rope, with sure lock trip lock. Especially adapted for handling headed grain, short hay, sheaf oats, and regular hay in big quantities. The 5 crossed ropes on each section insures cleaner and more compact loads than the regular. Standard sling. Has malleable iron center trip lock, easily tripped. Wt., 28 lbs.

187E389—Price..... **\$6.60**

Hay Fork Pulley



Has removable center pin, swivel eye, iron frame with a heavy rib which adds great strength. 5 $\frac{1}{2}$ -inch wood sheave; 1-in. self lubricating pin. Wt., 3 lbs. **35c**
 187E373

Knot Passing Pulley



Has extra large knot passing swivel head 6-in. wood sheave, malleable iron frame which will not spring. Rope cannot get between the frame and the sheave or be cut on the edge of sheave. Wt., 3 $\frac{1}{4}$ lbs. **65c**
 187E374—Price, each..... **65c**

Hay Fork Pulley



Self-oiling after once greased. Has wood shell with inner steel frame and 4 $\frac{1}{2}$ in. wood sheave; wrought iron axle support, steel swivel eye. Very strong durable and popular. Wt., 3 $\frac{1}{2}$ lbs. **30c**
 187E372



Field Stacking Outfit

\$22.75

Complete outfit for hay stacking in the field. Will make 50-foot stack. Longer stacks can be made by moving outfit. We do not furnish the poles supporting the cable track. Outfit consists of 150 feet of $\frac{1}{2}$ -inch galvanized cable, 2 clamps for making loops around end stakes, 2 shoulder clamps to prevent posts from working inward, 2 bolts for securing posts together where they cross at top, 2 knot passing pulleys, 1 187E376 double harpoon fork, 130 ft. $\frac{1}{4}$ -in. Manila rope, 65 ft. of $\frac{3}{8}$ -in. check rope, 1 Champion 3-wheel carrier, 187E355.

187E426—Field Stacking outfit complete. Ship. wt., 170 lbs. Price... **\$22.75**

187E427—For $\frac{3}{4}$ -inch rope in place of $\frac{1}{4}$ -inch, add for each foot of $\frac{3}{4}$ -in. rope..... **1 $\frac{1}{2}$ c**

Galvanized Wire Cable

Used with Field Stacking Outfits



For guy ropes, signal cords, fencing, etc. Made of seven wires twisted together. Not pliable enough for use through pulleys. Carried in stock only in lengths of 50, 100 or 150 feet, longer lengths from factory.

| Article No. | Diam. Inches | Shp. Wt. per 100 ft. lbs. | Breaking Strain Lbs. | Price per foot |
|-------------|---------------|---------------------------|----------------------|-------------------|
| 187E401 | $\frac{1}{2}$ | 52 | 10,000 | 4 $\frac{1}{2}$ c |
| 187E402 | $\frac{3}{8}$ | 30 | 6,300 | 3 $\frac{1}{2}$ c |
| 187E403 | $\frac{1}{4}$ | 13 | 2,300 | 1 $\frac{1}{2}$ c |

Clamps and Bolts



For field stacking outfit clamps made of malleable iron bolts of wrought steel.

187E112—No. 1. Double clamps for end loops for $\frac{1}{2}$, $\frac{3}{8}$ or $\frac{1}{4}$ in. cable. (State which.) Weight, 12 oz. Each..... **15c**

187E113—No. 2. $\frac{1}{2}$ -in. post clamps to hold posts on stacking outfit. Wt., 12 oz. Each..... **16c**

187E108—No. 3. 12-inch post bolts with 2 washers and 2 nuts to bolt posts together. Weight, 2 $\frac{1}{2}$ lbs. Each..... **15c**

187E109—No. 4. 15-inch eye bolts for tightening cable. Wt., 2 $\frac{1}{4}$ lbs. Each..... **26c**

Harpoon Hay Fork

Three sizes for handling all kinds of hay

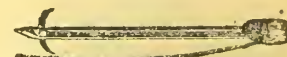
Not Malleable
 Wrought steel, standard in weight, size and construction. Perfectly fitted and painted.

187E376—The kind commonly used. Has tines 25 in. long from cross bar; width, 17 in. Ship. wt., 16 lbs. **\$2.50**

187E377—Extra long tine fork having tines 31 in. from cross bar; width, 17 in.; suitable for loose straw, alfalfa, etc. Ship. wt., 18 lbs. Price..... **\$2.80**

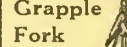
187E378—Extra heavy fork, especially adapted for handling alfalfa; has tines 33 in. long from cross bar and width, 22 in. Ship. wt., 30 lbs. Price..... **\$3.50**

Single Harpoon Fork



Wrought steel Nellis pattern, strong and durable. Illustration shows the fork open for raising a load. Length, extended, 36 in. Ship. wt., 12 $\frac{1}{2}$ lbs. **\$1.95**
 187E379—Price..... **\$1.95**

Four-Tine Grapple



Fork

Six-Tine Grapple Fork



Not Malleable

All iron and steel and in every way strongly made. Easy trip; width, 17 in. Opens about 4 $\frac{1}{2}$ feet. Ship. wt., 35 lbs. **\$8.30**
 187E381—Price..... **\$8.30**

Especially useful in short hay, loose straw, and alfalfa. Width, 17 in., opens about 4 $\frac{1}{2}$ feet. Ship. wt., 51 lbs. **\$10.40**
 187E382—Price..... **\$10.40**

For fastening pulleys to the floor. Wrought iron. Diam., $\frac{1}{2}$ in. Length, 8 $\frac{1}{2}$ in. threaded, 4 $\frac{1}{2}$ in. **12c**
 187E105—Wt., 1 lb. **12c**

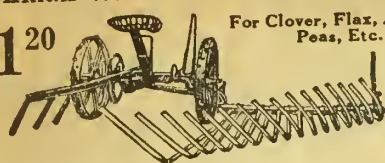
Floor Hook



Machinery You Need For Good Haying Crops

Climax Windrower and Buncher

\$11.20



For Clover, Flax, Alfalfa, Peas, Etc.

Will attach to any mower without boring a hole in cutter bar. For windrowing it delivers the cut crop out of the way of team for next round. It gathers only the crop that the mower cuts, so old dead grass and weeds that a rake picks up. Any crop can be windrowed or windrowed as desired. The buncher gate is necessary for bunching. The gate is attached to seat spring and is operated with a foot trip, and can readily be removed entirely when windrowing. The gates are quoted extra, as some farmers have no use for them.

Bunchers are made of flat, high carbon steel rods adapted especially for this purpose. Attached to the cutter bar with three clips to the guard bolt. Space between rods is 3 inches. Made in four sizes to fit 4½, 5, 6 or 7-ft. Mowers.

287 E 1516—4½-ft. size. Ship. wt., 70 lbs. Price.. \$11.20
287 E 1517—5 -ft. size. Ship. wt., 75 lbs. Price.. 11.50
287 E 1518—6 -ft. size. Ship. wt., 80 lbs. Price.. 12.95
287 E 1519—7 -ft. size. Ship. wt., 85 lbs. Price.. 13.65
287 E 1520—Buncher gate for any of the above sizes, weights, 15 to 25 lbs. State size, price..... \$3.15
Shipped from Factory in Southern Minn.

Climax Hay Buncher

\$7.50

For Bunching All Kinds of Grass or Grain



Very popular in Western States and largely used in cutting the very short hay which cannot be picked up with the rake, or where windrower cannot be used. Many in use in the cattle ranching sections to gather the short hay in bunches for stock to feed on during the winter months. It avoids the lodged dead grass and weeds that a rake picks up, and the grass retains more nourishment and color than when gathered with a rake.

Especially designed for Prairie Grass and suitable for bunching all kinds of Grass or Grain. Attaches to any make of Mower without boring a hole. Adds but little weight to the machine. Spring Steel Pick-Up Bars. Convenient Foot Lever permits operator to dump easily. Light and easy to operate. Space between bars, 2½ inches.
287 E 1511—To fit 4½-ft. mower. Ship. wt., 40 lbs. \$7.50
287 E 1512—To fit 5-ft. mower. Ship. wt., 45 lbs. 7.60
287 E 1513—To fit 6-ft. mower. Ship. wt., 50 lbs. 8.00
Shipped from Factory in Southern Minn.

Climax 2-Wheel Sweep Rake

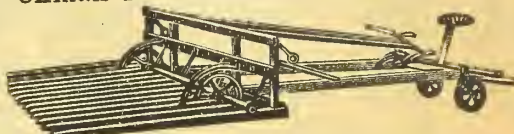
\$25.90



Non-springing pivot tongue. Metal pointed teeth. Made of carefully selected material throughout, carefully dried and seasoned. Built to stand up under hard usage. Regular 12-ft. rakes, measuring 11 ft., 8 in. across points of teeth. Easily handled, well balanced, and will stand as much hard work as any similar rake. Shipping weight, 300 pounds.

287 E 1502—Price, complete with extra strong well made steel wheels..... \$25.90
Shipped from Factory in Missouri.

Climax 4-Wheel Buck or Sweep Rake



Used in all of the alfalfa sections of the West. Strong and durable. Excellent lever control. Made of select material, well seasoned, carefully constructed teeth and frame. Fully equal in strength, durability and ease of lever operation to any other rake you can buy. Superior to many well known makes, especially in the lever arrangement, which allows the operator to handle the load with less labor on self and team. We recommend it especially in heavy crops. Is mounted on 18-in. diameter main wheels with wide tires, castor wheels in rear. Removable boxes easily replaced when worn. Width, 12 ft., length of teeth 8 ft., metal pointed.
287 E 1504—Price, complete. Ship. wt., 500 lbs..... \$52.00
Shipped from Factory in Missouri.

Climax Hay Rack Brackets



Broad cast bearing top plates which lie diagonally across top of timber. Bolts fit over the top plate and pass down along the side of timbers where they are secured to the bottom cross timber by nuts against washer clamp. Plates to fit between the first and second timbers. Complete set with directions, all packed in box.

487 E 392—No. 1 size, with 14-in. bolts. Ship. wt., per set of eight, 12½ lbs. Our price, per set of eight..... \$1.95

487 E 393—No. 2 size with 16-in. bolts. Ship. wt., per set, boxed, 13½ lbs. Price, per set of eight..... \$2.15

Hemm's Hay Rack Fixtures



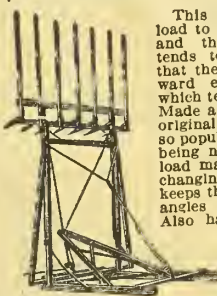
You can make any size or style hay rack with these fixtures.

No vertical holes to bore. By placing upright stakes in openings a stock rack can easily be made. Can be used for any width of timbers desired. Flanged on the inside. Made of malleable iron. A set consists of 8 fixtures, as shown in cut. Ship. wt., per set, fixtures only, 18 lbs.

487 E 395—Price, per set of 8, without bolts..... \$4.35

487 E 396—Price, per set of 8 fixtures and 24 bolts, 8, ½x3, 8, 2½x2½, 8, ½x6, complete outfit. Price..... \$4.70

Overshot Hay Stacker



This Stacker delivers the load to the center of the stack and the constant pounding tends to bind the center so that there is no settling afterward excepting at the end, which tends to shape the stack. Made after the pattern of the original Champion type that is so popular. The lift at the start being nearly directly over the load makes an easy start and changing as the load rises, keeps the pulley at nearly right angles to load at all times. Also has side braces on the arms, which prevent swaying when the load reaches the top. Can be adjusted to elevate from 12 to 17 ft. in height.

Has recoil spring, which gives the pitching effect when discharging load on stack.

287 E 1506—Ship. wt., about 800 lbs. \$67.20
Shipped from Factory in Missouri.

Monarch Disc and Coulter Sharpener for 15 to 20-Inch Disc

\$6.75



Keep your discs sharp and make them pull easier and do better work. It is easy to remove blades by turning disc bottom up.

If the disc blade is bent or warped it can be straightened with this machine. Has centering device to accurately center any disc. No clattering or jumping of the cutter. Improved roller carrier steadies and discs. Double gear makes disc revolve slowly and gives great power to the machine. All cast working parts, steel shafts. Full directions with each machine. Can be bolted to bench or plank or upright post. The position of the machine makes it convenient to put on the disc.

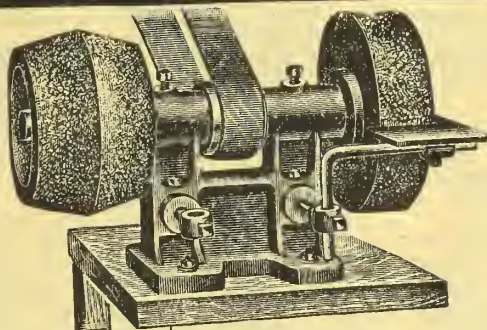
Not available.

487 E 1020—Price, ship. wt., about 42 lbs. \$6.75

487 E 1021—Extra Tool Steel Knives, Each, wt. 4 oz., 10x2½-in. pulley to use with power. Weight, 10 lbs. \$1.25

Power Sickle and Tool Grinder

Grinds All Kinds of Farm Tools



\$7.25

Runs as Smooth as a Top

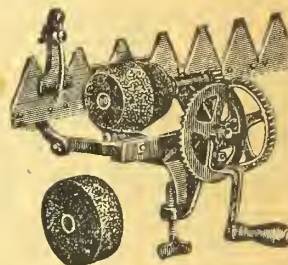
A power grinder that is needed on every farm, for grinding farm tools. Requires very little power. Any size engine or power motor will run it.

Has disc holder for grinding harrow and plow discs 14 to 18 in. diameter.

Bolts to bench or table, ¾-in. main shaft is machined steel. Wheels of vitrified corundum. One disc or tool grinding wheel furnished, 6 in. diameter, 1½-in. thick; also one bevel, or sickle grinding wheel, diameter in center, 5½ in., tapering to 4½ in.; 3½ in. thick at the ends. Knuckle-jointed tool rests, may be set at any angle; a sickle or mower knife holder and disc sharpening attachment. Diameter of pulley, 2 in., with 1½-in. face. Ship. wt., 36 lbs. Complete with sickle and disc holders; one tool and one bevel stone.

487 E 325—Price..... \$7.25
487 E 326—Extra Tool Wheel. Price..... 1.75
487 E 327—Extra Bevel Wheel. Price..... 2.15

Climax Sickle and Tool Grinder

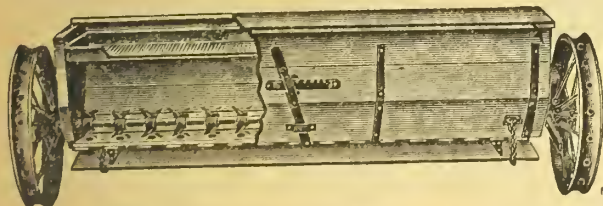


\$3.65

For grinding farm tools and mower knives. Adjustable clamp at bottom to conveniently attach to wheel on harrow or mower, for sickles; and to bench or table for grinding tools. Mower Knife Holder adjustable as desired, and firmly holds the mower knife with two guides or rests, adjustable for any width or thickness of knife backs. Clamp allows shifting of knife to any position while grinding. Weight of knife is carried by holder and operator has full view, and easily controls the pressure and governs the grinding of nicks, gaps and any width or length of bevel.

Grinding wheels are vitrified corundum. Price includes one sickle or bevel wheel, one tool wheel, diameter, 4 in., face 1½ in., one tool wheel and mower knife clamp. Ship. wt., boxed, 14 lbs. \$3.65
487 E 330—Price.....
487 E 331—Extra Tool Wheel. Price..... .95
487 E 332—Extra Bevel Wheel. Price..... 1.05

Fertilizer and Lime Sower



Many thousands of farmers have used this Fertilizer and Lime Sower with great success. They have found that it is better for broadcasting Lime, Asas, Plaster, Phosphates, Nitrate of Soda, or some other commercial fertilizer, and enables them to secure maximum yields from their fields so treated.

Has double lid screen and scattering board. Throws out of gear from either wheel. The screen insures against trouble from foul substances entering the machine, mixing with the lime or fertilizer. It sows evenly, has a light draft and machine, mixing with the lime or fertilizer. Length of the hopper is 7 ft. 7 in. All feed openings at the bottom are square. It is adjustable to broadcast from 1000 to 6000 pounds of lime per acre. Commercial Fertilizer 600 to 6000 lbs. per acre.

Has cold rolled steel axle. Diameter, 1½ inches. Wheels are of steel, diameter 30 inches, concave tires, width, 4 inches. Combination force and agitator feed. Complete with sowing dial, steel shifting lever and all steel, rust resisting bottom and tongue for two horses. Shipping weight, about 420 lbs. Extra charge for doubletrees and neckyoke.

287 E 1403—Lime and Fertilizer Sower without Doubletrees and Neckyoke. Price..... \$49.50
287 E 1405—Doubletrees, Singletrees and Neckyoke for above. Price..... 4.30
Ship. weight, 30 lbs. Shipped from Factory in Ohio.

Stump Pullers and Accessories

Stump Puller Rope

High grade especially tempered, carefully assorted wires of No. 1 steel. Furnished any length, 10 feet or over, prices without couplings or fittings.

| Article Number | Diameter | Weight, per 100 Feet | Price per Foot |
|----------------|----------|----------------------|----------------|
| 287 E 4906 | ½-inch | 39 pounds | 14c |
| 287 E 4907 | ¾-inch | 62 pounds | 19c |
| 287 E 4908 | 1-inch | 89 pounds | 26c |
| 287 E 4909 | 1½-inch | 120 pounds | 34c |
| 287 E 4910 | 2-inch | 158 pounds | 43c |

Shipped from Factory in Southern Minn.



Double Point Root Hooks

Especially adapted for light work in brush and grubs and intended for use with the smaller machines.

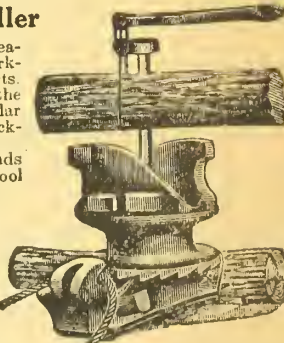
Not intended for large stump pulling, except where roots are decaying. One side only, of cast steel. Weight, 30 lbs.

287 E 4936—Price..... \$7.90
Shipped from Factory in Southeastern Minn.

Climax Stump Puller

Simplicity is one of the features of our Climax. Few working, therefore, few wearing parts. Light weight increases the value of our Climax over similar stump pullers. Easily and quickly shifted about.

V-shaped Iron Drum winds the rope like thread on a spool and preserves its life so that it cannot chafe as rope would on a grooved drum. The first three coils act as a bed, equalizing the pressure to the next three coils. There is no flattening or breaking of the wires. One rope on our V-shaped drum will outwear two ropes on many other styles of stump pullers.



| Article Number | Steel Rope Leth. Feet | Diam. In. | Anchor Loop | Size Stump Inches | Ship. Wt. Lbs. | Price |
|----------------|-----------------------|-----------|-------------|-------------------|----------------|---------|
| 287 E 4900 | 30 | ½ | 5 foot | 6 | 175 | \$25.20 |
| 287 E 4901 | 40 | ¾ | 5 foot | 8 | 225 | 37.80 |
| 287 E 4902 | 50 | 1 | 6 foot | 15 | 350 | 50.40 |
| 287 E 4903 | 60 | 1½ | 8 foot | 24 | 425 | 67.20 |
| 287 E 4904 | 70 | 2 | 8 foot | Any Size | 550 | 84.00 |

Shipped from Factory in Southern Minnesota.

Write for prices on stump puller accessories.

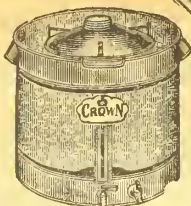
Montgomery Ward & Co Chicago

For the Progressive Dairyman

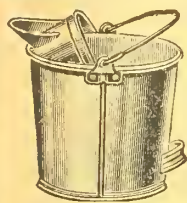
Crown Cream Separator and Aerator

Double Can

Keeps cream cool. Separates cream from milk in four to six hours. Inner tank pure charcoal tin, galvanized. Water tube connecting inner and outer cans allows free circulation of water and large cooling surface. Removable inner tank. Gauge glasses in both cans show depth of cream. Separate faucets to draw off water or milk. Hose not furnished. Trade capacities 4, 8 and 12 gallons; actual capacities, $\frac{3}{4}$ gallon less.



| Article Number | Price | Capacity | Ship. Wt. Lbs. |
|----------------|--------|---------------------|----------------|
| 487 E 4258 | \$5.90 | Milk Tank 4 gals. | 14 |
| 487 E 4259 | 6.95 | Water Tank 18 gals. | 20 |
| 487 E 4260 | 8.10 | 12 gals. 26 gals. | 24 |



Milk Strainer Pail

\$1.07

Extra Heavy Tin Plate. Steel bound. Has riveted steel ears with heavy bail. Has brass strainer and lipped pouring spout. Hood partly incloses top of pail, does not interfere while milking. Sanitary and easily cleaned.

87 E 4320—12 quart. Ship. wt. 4 lbs. Price, \$1.07

87 E 4321—14 quart. Ship. wt. 4 1/2 lbs. Price, \$1.18

Extra Heavy Tin Dairy Pail

59c

Well sealed, soldered and tinned, with extra reinforcements inside ears. This is not the common light galvanized bucket but a standard heavy tinned dairy pail—durable and sanitary. Worth many of the cheaper kind.

87 E 4316—12 quart. Shipping wt., 3 1/2 pounds. Each, 59c

87 E 4317—14 quart. Shipping wt., 3 1/2 pounds. Each, 66c



Elgin Pattern Railroad Milk Cans

\$4.85 Up

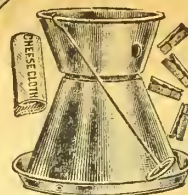


One of the most popular cans sold. Heavy double-tinned steel plate; all seams heavily soldered. Body and bottom solidly riveted to bottom hoops. Special lock joint connecting breast with neck; cannot pull apart nor leak. When piled up, weight comes on neck joint, ordinary cans give out here first.

Breast and bottom fully rounded, therefore easily cleaned; no open seams to hold milk or dirt. Handles strongly riveted. Superior quality; low prices.

| Article Number | Size Gallons | Diameter Inches | Height Inches | Ship. Wt. Pounds | Price |
|----------------|--------------|-----------------|---------------|------------------|--------|
| 487 E 4300 | 5 | 10 | 19 1/2 | 12 | \$4.85 |
| 487 E 4301 | 8 | 12 1/2 | 21 1/2 | 19 1/2 | 6.65 |
| 487 E 4302 | 10 | 12 1/2 | 24 1/2 | 21 1/2 | 7.25 |

Shipped promptly from Stock at Chicago.



Milk Cooler and Aerator

Not Mailable

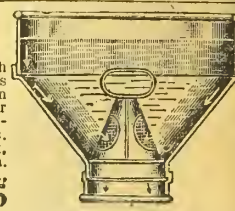
Takes out animal heat and odor; cools and aerates milk as it flows from perforations around bottom of upper tank and over drum. Heavy tin plate drum and trough, heavy galvanized steel bottom plate. Double cheese cloth strainer with spring pins. Agitator for stirring ice mixtures. Full directions.

| Article Number | Capacity | Size of Dairy | Ship. Wt. | Price |
|----------------|----------|----------------|-----------|--------|
| 187 E 4264 | 18 qts. | 1 to 25 cows | 27 lbs. | \$6.70 |
| 187 E 4265 | 34 qts. | 25 to 50 cows | 35 lbs. | 7.95 |
| 187 E 4266 | 52 qts. | 50 to 100 cows | 40 lbs. | 9.70 |

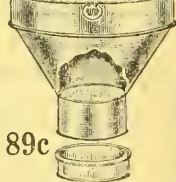
Double Milk Can Strainer

Capacity, 9 qt.

Made of 3X Tin with double fine 60 mesh brass wire cones which edge in place, easily removed for cleaning. No direct pressure against strainers. Diameter, 11 inches, neck, 4 1/2 inches, height, 9 1/2 in. 87 E 4353—Ship. wt., 2 1/2 lbs. Price, \$2.95



Milk Can Strainer



Made of 3X Charcoal tin plate, making it very substantial and long-wearing. Carefully sealed and soldered. Has brass wire strainer. Neck—5 inches. Measures 11 1/2 inches at large end. Height, 8 1/2 inches. Provided with tinned steel ring at neck to attach extra strainer cloth. Easily cleaned.

87 E 4352—Milk Can Strainer. Shipping weight, about 2 lbs. Price, each, 89c

Iowa Pattern Milk Cans

\$4.20 and up

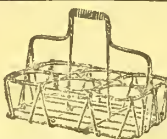
Special lock-joint neck, same as our Elgin cans. Strongly riveted, rounded handles. Body, double tinned, stiff steel plate with rounded bottom hoop. Rigidly riveted together. Smooth finish inside and outside. No cracks or corners in which milk can collect and sour.



87 E 4306—5 gal. Diameter 10 1/2 in. Height, 19 1/2 in. Ship. weight, 11 lbs. Price, each, \$4.20

87 E 4307—8 gal. size, 21 1/2 in. high. Ship. wt., 15 lbs. Diameter, 13 in. Price, each, \$5.25

87 E 4308—10 gal. size, 24 1/2 in. high. Ship. wt., 16 1/2 lbs. Diameter, 13 in. Price, each, \$5.65



Milk Delivery Baskets

78c

Heavy, twisted tinned steel wire. Lighter, more sanitary and stronger than galvanized sheet steel. Very convenient for delivering milk.

87 E 4354—Holds 4 quart and 2 pint bottles. Ship. wt., 2 1/2 lbs. Price, 78c

87 E 4355—Holds 6 quart bottles. Ship. wt., 2 1/2 lbs. Price, 85c

Dairy Aprons

Oiled Duck

For dairies, liverys, garage and other places where a water-proof apron is needed. Made of heavy yellow oiled duck with bib and neck strap. Saturated and coated with four coats of bright yellow water-proofing oil and thoroughly dried. Double reinforcement of oiled canvas at the waist, where the most wear comes. Width, 36 inches. Length, 48 inches. Shipping weight, 1 1/2 pounds. 87 E 4404—Price, \$1.25



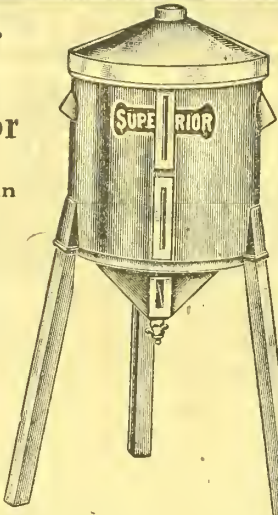
Cream Separators

Superior Cream Separator

The Leader in Dilution Separators

Separates Cream from Milk in Three to Four Hours or by Mixing Ice with Milk in Half the Time

Shipped from Chicago Stock.

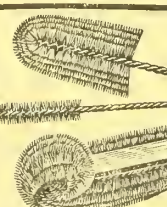


\$4.15

Is operated by introducing cold water or ice into the milk about equal parts. As the water mixes with the milk the cream separates and rises to the top. You always have sweet diluted milk, which is much better as a stock food than sour milk.

Extra heavy 1XX Tin, lock sealed and soldered. Tank enameled blue outside and decorated. Three 26-inch hardwood legs. Average height, 43 in. Price includes tank with gauge glasses, reversible cover with strainer faucet and hardwood legs. Packed in cartons. Deep cone bottom with faucet allows drawing off milk without disturbing cream.

| Article Number | Capacity Gallons | Shipping Weight, lbs. | Price |
|----------------|------------------|-----------------------|--------|
| 487 E 4255 | 10 | 12 | \$4.15 |
| 487 E 4256 | 14 | 14 | 4.80 |
| 487 E 4257 | 18 | 18 | 5.50 |
| 487 E 4258 | 24 | 22 | 6.20 |
| 487 E 4259 | 32 | 36 | 7.20 |



Dairy Cleaning Brush Set

Consists of one wood handle separator, milk bottle or fruit jar brush, length, 14 inches. One separator spout brush. Total length, 16 inches. One test tube brush. Total length, 8 1/2 inches. 87 E 4360—Complete set, 3 brushes. 27c

Shipping weight, 5 ounces. Per set, 15c

87 E 4361—Separator bowl, milk bottle or fruit jar brush only. Price, 9c

87 E 4362—Separator spout brush only. Price, 5c

87 E 4363—Test tube brush only. Price, 11c

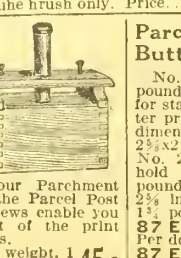
Milk Can Brush

87 E 4372—Black bristles woven into double strands of tinned wire, wood handle. Total length, 16 inches. Length of brush proper, 5 inches. Width, 3 inches. Shipping weight, 2 ounces. Price, 11c

Butter Molds

45c

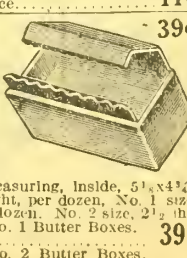
Made of clear, hard maple smoothly finished inside and out, makes standard one-pound plain prints. When wrapped in our Parchment Paper they just fit the Parcel Post Butter Box. Two screws enable you to adjust the weight of the print from 1/2 to 1 1/4 pounds. 87 E 4400—Mold, weight, 1 1/4 pounds. Price, 45c



Parcel Post Butter Box

No. 1 one pound size made for standard butter prints, inside dimensions, 4 1/2 x 2 1/2 x 2 1/2 inches. No. 2 size will hold two one-pound prints, measuring, inside, 5 1/2 x 4 1/2 x 2 1/2 inches. Weight, per dozen, No. 1 size, 1 1/2 pounds, per dozen, No. 2 size, 2 1/2 lbs. 87 E 4394—No. 1 Butter Boxes. Per dozen, 39c

87 E 4395—No. 2 Butter Boxes. Per dozen, 50c



Climax Milk Bottles

Made of clear, flint glass with inside shoulder at top to take No. 2 standard milk caps. Heavy roll rim at top affords good hand grip. Glass annealed to insure strength and toughness. Will stand a great deal of rough handling. Smoothly finished inside and outside, therefore easily cleaned. All bottles marked "Sealed" and stamped with factory numbers. Correct capacities. Packed in wooden crates. We assure safe delivery. Shipping weights, dozen, in crates, quarts, 26 1/2 lbs.; pints, 16 lbs.; half pints, 11 pounds. Not advisable to send by mail.

| Article Number | Size | Dozen | Three Dozen | Six Dozen |
|----------------|-----------|--------|-------------|-----------|
| 187 E 4330 | Quarts | \$1.30 | \$3.50 | \$6.35 |
| 187 E 4331 | Pints | 1.11 | 2.82 | 5.15 |
| 187 E 4332 | 1/2 Pints | .94 | 2.40 | 4.45 |

Milk Bottle Caps \$2.65

Per Basket 6000 Caps



87 E 4410—Heavy, plain, paraffined caps for Climax or other milk bottles. Ship. wt., 2 1/2 lbs. Per 42c

87 E 4412—Basket with 6000 caps. Ship. wt., 15 lbs. Price, \$2.65

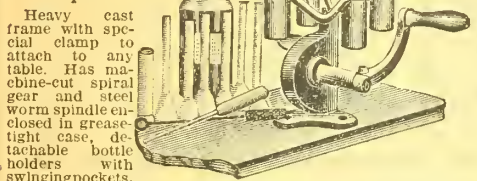
87 E 4414—Barrel containing 50,000 plain caps. Ship. wt., 130 lbs. Price, \$18.50

Shipped from Stock at Chicago.

Babcock Milk and Cream Testing Outfits

\$8.75

up



Heavy cast frame with special clamp to attach to any table. Has machine-cut spiral gear and steel worm spindle enclosed in grease-tight case, detachable bottle holders with swinging pockets. Prices include test bottle, funnel brush, acid measure, pipette and complete directions. Testers for use in Wisconsin furnished with milk and cream test bottles, funnel, pipette, acid measure and brush. Average weight, boxed, about 14 pounds.

Not Mailable

187 E 4340—4 bottle size for milk and cream. Regular Wisconsin \$8.75 \$9.30

187 E 4341—2 bottle size for milk and cream. 7.55 8.20

187 E 4342—4 bottle size for milk only. 8.15

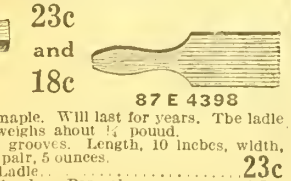
187 E 4344—2 bottle size for milk only. 6.95

Extra Glassware for Babcock Testers

For use in making milk tests. Wisconsin Glassware must be used in Wisconsin, according to State Law.

| Article No. | Style | Regular Wisconsin |
|-------------|------------------------------------|-------------------|
| 87 E 4383 | 50% Cream | 27c |
| 87 E 4384 | 10% Milk | 25c |
| 87 E 4385 | Skimmed Milk | 98c |
| 87 E 4386 | Acid Measure | 11c |
| 87 E 4387 | 18 c.c. Cream Pipettes | 12c |
| 87 E 4388 | 17.6 c.c. Milk Pipettes | 25c |
| 87 E 4390 | Combination Milk and Cream Pipette | 26c |

Average shipping weight, each, about 6 ounces.



Made of clear, hard maple. Will last for years. The ladle is nicely finished and weighs about 1 1/2 pound. Spades have fine cut grooves. Length, 10 inches, width, 3 inches. Ship. wt., per pair, 5 ounces. 87 E 4397—Butter Ladle. 23c

87 E 4398—Butter Spades. Per pair, 18c



Cream Setting Cans

Not Mailable

These are durable, well-made cans with strong hails and wood handles. Have extra deep covers. We quote special low prices for crates of six cans and do not sell less quantities. The capacities of the cans are trade capacities; but actual capacities are 12 1/2 and 18 quarts.

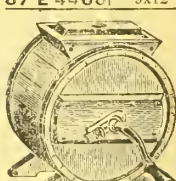
| Article Number | Capacity quarts | Ship. wt., lbs. | Price per crate of 6 |
|----------------|-----------------|-----------------|----------------------|
| 187 E 4312 | 14 | 20 | \$3.50 |
| 187 E 4314 | 20 | 26 | 4.15 |

Parchment Paper

For wrapping butter, cheese, sandwiches, meat, for putting up lunches for school and picnics. Keeps butter clear and sweet for market.

The same weight and quality as used by the best creameries throughout the country. Our Parchment Paper is a pure white, tough vegetable fiber, 30 lb. stock, heavy parchment. 1000, 500, and 250 sheets is packed in cardboard boxes. Ship. wt., 8 to 10 lbs., per 1000 sheets.

| Article Number | Size | 250 Sheets | 500 Sheets | 1000 Sheets |
|----------------|------|------------|------------|-------------|
| 87 E 4406 | 8x11 | 54c | \$.96 | \$1.83 |
| 87 E 4408 | 9x12 | 63c | 1.14 | 2.20 |



Cedar Cylinder Churn

\$3.55 Up

Easy to turn. Four paddle dashers agitate cream violently to produce butter quickly. Made from high quality clear cedar. Lock and crank made of cast iron, heavily tinned. Has a four-paddle dasher. Crank locked to churn with clamp and thumbscrews, which prevents leakage. The top is large and dasher easily removed. Lower rests removable. The hoops and metal parts are galvanized and will not rust. Ship. wt., 14 to 25 lbs.

| Article Number | Price | Holds Gals. | Churns Gals. | Height Inches | Length Inches |
|----------------|--------|-------------|--------------|---------------|---------------|
| 487 E 4226 | \$3.55 | 3 | 2 | 15 | 9 1/2 |
| 487 E 4227 | 4.05 | 4 | 3 | 17 | 11 1/2 |
| 487 E 4228 | 4.55 | 7 | 4 | 18 1/2 | 13 1/2 |
| 487 E 4229 | 5.75 | 10 | 6 | 20 | 15 1/2 |

Climax Butter Worker

Will work a batch of butter in three to five minutes. Smoothly finished and easily cleaned. Crank rollers and gears are malleable iron. All metal parts are heavily galvanized. Ship. wt., 25 to 50 lbs.

| Article Number | Price | Size | Wrks Lbs. |
|----------------|---------|-------|-----------|
| 487 E 4324 | \$ 8.50 | 14x23 | 10 |
| 487 E 4325 | 10.50 | 17x27 | 20 |

Rennet Tablets for Cheese Making

24 Tablets in box. Necessary when making cheese at home. 87 E 4380—24 Rennet Tablets. Ship. wt., 3 oz. Price, 95c

Butter Churns and Dairy Barn Equipment

Interior
Working
Parts

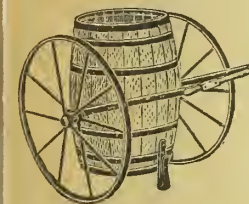
Perfection Sanitary Churn

This churn is made of metal instead of wood and you can always get the right temperature for best churning by placing it in hot or warm water to suit conditions. In winter, place the churn on top of stove and turn dasher a few times. This makes churning easier.

Churns the best butter in 5 minutes. Made of extra heavy XXX tin-plate; rounded bottom inside; small quantities of cream can be easily churned even in largest size churn. Removable clear ash dasher easily and instantly taken apart. Special nickel-plated faucet for drawing off buttermilk. Special crank shaft packing box prevents leaking. Full directions with each churn. Packed in cartons.

| Article Number | Price | Holds Gal. | Churns Gallons | Shipping Weight |
|----------------|--------|------------|----------------|-----------------|
| 487E4232 | \$4.50 | 3 | 1 1/2 to 1 3/4 | 7 1/2 lbs. |
| 487E4233 | 4.85 | 5 | 1 to 2 1/2 | 10 lbs. |
| 487E4234 | 5.25 | 7 | 1 to 3 1/2 | 11 lbs. |
| 487E4235 | 5.95 | 10 | 2 to 5 | 12 lbs. |

Steel Frame Barrel-Cart



Especially adapted to use with barrel sprayers, 36-inch steel wheels are extra strong, with 1 1/2-inch tires. The frame of the cart is made of 1 1/2-in. flat steel and fitted with hardwood handle. The axle castings and frame can be solidly bolted to the sides of barrel. (Barrel not furnished). Shipping wt., 58 lbs.

289 E 6150—Price, \$5.25
Shipped from Factory near Chicago.

A Handy Cart for all-around use about the farm, just right for a sprayer cart, hauling milk cans, moving bee-hives, hauling lumber, etc.

Frame is made of heavy steel, securely braced and bolted. Length of platform, 32 in.; width, 28 in.; height from ground, 6 1/2 in. Carries four 10-gallon milk cans easily. Height of wheels, 36 in.; width of tires, 1 1/2 in.; cranked steel axle, 1/2 in. diameter. Platform has runners at rear end that will slide either way. Ship. wt., 91 lbs.

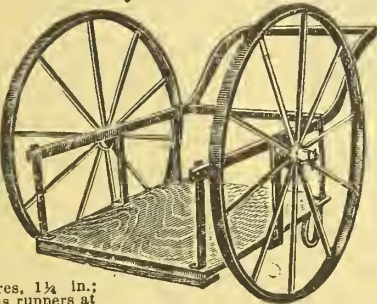
289 E 6156—Pick-Up Cart. Price, \$9.25
Shipped from Factory near Chicago.

Hawthorne Hand Churn

Thousands of these churns are doing good service daily. They are made of the same high grade material and in the same careful way that made Hawthorne Churns prime favorites for many years. Seasoned clear white oak throughout, pine cover, reinforced. Balls are attached to malleable bolted ears on the outside of the churn. The stands are of hardwood. Barrel varnished natural finish with hoops painted to prevent rusting. Complete directions sent with every churn. Ship. wt., 28 to 45 pounds.

| Article Number | Price | Holds Gallons | Churns Gallons |
|----------------|--------|---------------|----------------|
| 487 E 4200 | \$5.40 | 6 | 1 to 3 |
| 487 E 4201 | 5.95 | 10 | 1 to 5 |
| 487 E 4202 | 6.95 | 15 | 2 to 7 |
| 487 E 4203 | 7.25 | 20 | 3 to 10 |

Handy Pick-up Cart



Shipped from Factory near Chicago.

20th Century Steel Churn

Sanitary and easy to clean has all the latest improvements in churn construction. All steel, heavily double-lined inside. Outside enameled handsome blue overturning. Cork-lined cover of pressed steel double-lined. Rounded inside corners, easy to clean. Latest improved hand wing nut lock.

The 7 and 10-gallon sizes have braced welded-steel frames, as shown, 24 inches from floor to center of crank. Five-gallon size has short 11-inch frame for table churning. Full directions with each churn. Ship. wt., 18 to 31 lbs.

| Article Number | Price | Holds Gallons | Churns Gallons |
|----------------|--------|---------------|----------------|
| 487 E 4220 | \$6.95 | 5 | 1 to 2 1/2 |
| 487 E 4221 | 8.85 | 7 | 1 to 3 1/2 |
| 487 E 4222 | 9.95 | 10 | 2 to 5 |

187 E 4223—Single 10-inch double flanged pulley for 1-inch belt for 7 and 10-gal. churns only. Weight, 6 pounds. Price, \$1.85

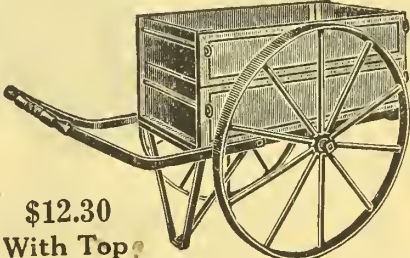
Climax Power Churn

The ease, convenience and efficiency of hitching your churn to a gasoline engine or other power unit is gaining favor every day. Varnished oak barrel, rust-proof hoops and extra heavy frame. All sizes have 12x12-inch tight and loose pulleys; also crank. Complete directions with every churn; 10 and 15-gallon capacities should make 60 r.p.m., 20, 25 and 35-gal. churns, 50 r.p.m. Shipping weight, 55 to 95 lbs.

| Article Number | Price | Holds Gallons | Churns Gallons |
|----------------|---------|---------------|----------------|
| 287E4208 | \$10.70 | 10 | 2 to 5 |
| 287E4209 | 11.50 | 15 | 2 to 7 |
| 287E4210 | 12.35 | 20 | 3 to 10 |
| 287E4211 | 14.40 | 25 | 4 to 12 |
| 287E4212 | 15.90 | 35 | 5 to 17 |

Shipped from Factory near Chicago.

Climax High Box Cart



\$12.30
With Top Box

held in place by regular end rods. Steel handle bars firmly bolted to frame. Steel wheels: height, 36 in.; tires, 1 1/2 inches; steel axle, diameter, 1/2 in. Hardwood box, 9 inches deep, 21 in. wide, 36 in. long. Top box, depth, 7 1/2 inches. Shipping weight of cart without top box, 100 lbs. Top box 12 lbs.

289 E 6151—Cart complete with top box, \$12.30

Churn Pulley Set

187E4684—Tight and Loose Pulley Set with Gudgeon shaft. Pulleys, each 12x2 1/4 inches, for 6, 10, 15 and 20-gallon churns. Weight, 19 pounds. Price, \$4.45

187 E 4688—Pulley Set. Pulleys, 18x2 1/4 inches for 25 and 35 gallons. Weight, 55 lbs. Price, \$6.95

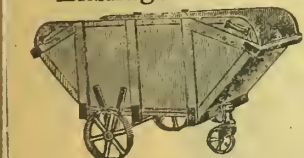
This cart can be used with box for hauling loose material or the box may be quickly taken off permitting cart to be used for hauling lumber.

Adapted for hauling feed (with removable top section), milk cans, lumber, etc. Ends and sides of cart are bolted to frame. Steel wheels: height, 36 in.; tires, 1 1/2 inches; steel axle, diameter, 1/2 in. Hardwood box, 9 inches deep, 21 in. wide, 36 in. long. Top box, depth, 7 1/2 inches. Shipping weight of cart without top box, 100 lbs. Top box 12 lbs.

289 E 6152—Cart, only, with top box, \$10.65

289 E 6154—Top box only, \$1.75

Ensilage Trucks



Capacity 16 Bushels

A labor-saving method of handling silage and feed in barns. Big enough to feed 20 to 24 cows at one time. Riveted and bound with iron. Heavy galvanized sheet steel lining in bottom. Body made of seasoned white pine. Two large 8-inch side wheels 2-inch axle, 1-inch steel. 5-inch castor wheel on end. Height of box on outside, 25 inches; height from floor, 33 inches; length over all, 70 inches; width of box, 31 inches over all; width of base, 26 in.; outside of wheel, 31 inches. Shipping weight, 138 lbs.

287 E 4795—Climax Ensilage Truck. Price, \$31.00

Shipped from Factory near Chicago.

Climax
Post
Anchor
Loop



Complete with anchor bolt and turnbuckle. Made of 1 1/2-inch rod track. Loop to go over post 2 1/2 ft. long and improved turnbuckle 1/2x20 in. with tension bolt, wire connecting link and anchor bolt 5 ft. long to go through buried log (post and log not included). For posts up to 20 feet high. Ship. wt., about 30 pounds.

287 E 4736—Post Anchor Loop. Price, \$5.45

Shipped from Factory near Chicago.

Wisconsin Adjustable Steel Stanchions

Made of Steel and Malleable Iron. Oil Soaked Maple Wood Linings. Adjustable to 6, 7 1/2, or 8-inch opening. Chain hanging. Positive lock. Well enameled. Furnished with one eye-bolt, length, 6 inches, for fastening at top. Each stanchion has extension arm to keep it from swinging when open. Fits framework in old barns easily. Weight, without guard, 17 1/2 lbs. Weight, with guard, 18 1/2 lbs. Height, 44 1/2 inches. End of chain to top of chain 5 1/4 inches.

187 E 4770—Stanchions without guard. Price, each, \$3.60

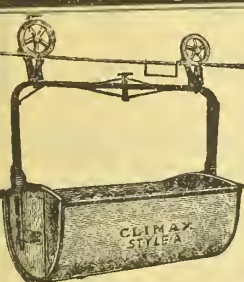
187 E 4772—Stanchions with guard. Price, each, \$4.25

Lots of 6 or more shipped direct from Factory near Chicago.

287 E 4774—Stanchions without guard. Price, each, from Factory, \$3.45

287 E 4776—Stanchions with guard. Price, each, from Factory, \$4.10

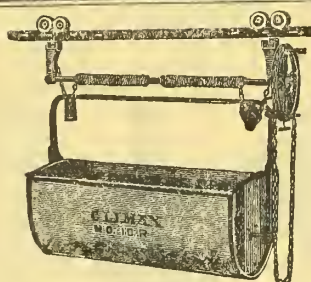
Dairy Barn Equipment



7 Bushel Adjustable Litter Carrier

Can be used on both rigid and rod-track. 7-in. wheels, roller bearing. Bucket dumps either way, latches at both ends. Carrier trips automatically. Bucket made of galvanized steel, reinforced, absolutely tight. Bucket, 40 inches long, 22 inches wide, 16 inches deep. Shipping weight, 85 pounds.

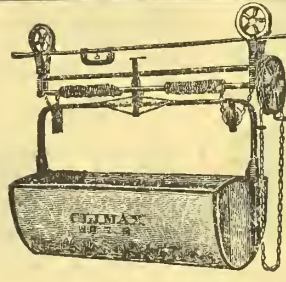
287 E 4700—Climax, 7 bu. Adjustable Litter Carrier with trip. Price, each, \$27.50



9 Bushel Carrier

The 14-inch wheel gives tremendous leverage. Friction brake allows the carrier to be lowered fast or slow. Tub made of heavy galvanized steel reinforced with 1-inch angle iron. Carriers lock at both ends. Hand trip for dumping. Tub 42 inches long, 28 inches wide, 18 inches deep. Distance from top of rail track to bottom of litter carrier box, locked up 44 inches; let down 92 inches. Carrier can be used on rail track only. Shipping weight, 160 pounds.

287 E 4704—9 bu. raise and lower carriers. Price, each, \$42.00



7 Bushel Carrier

Wheels, 7 in. with roller bearings. 14-inch raise and lower wheel. Friction brake allows carrier to be lowered fast or slow. Tub is made of heavy galvanized steel reinforced. Carrier locks at both ends. Size of tub 40 inches long, 22 inches wide and 16 inches deep. Distance from top of rail track to bottom of litter carrier box when locked up, 42 inches; when let down, 92 inches. Shipping weight, 135 pounds.

287 E 4702—Raise and Lower Carrier with trip. Price, each, \$39.50

Shipped from Factory near Chicago.

Accessories for Barn Equipment

287 E 4724—Rail track Hangers with 12 in. extension. Each, 48c

287 E 4726—Rail track Hanger with 18 in. extension. Each, 53c

287 E 4730—Rail and Rod Track Splice Connection—Width 3 foot splice, hanger, and tension bolt. \$3.50

287 E 4746—Post Tension Bolt 1/2x30 in. Each, \$1.35

287 E 4748—Barn Tension Bolt 1/2x15 in. Each, 98c

287 E 4740—Angle Curves. Each, \$1.40

287 E 4742—Post Curve or Corner Switch. Each, \$4.50

287 E 4750—Trip Blocks for Rod Track. Each, \$1.10

287 E 4792—Stanchion Anchors for Wood Floor. Each, 25c

287 E 4793—Stanchion Anchors for Cement Floor. Each, 42c

287 E 4718—End Loop Clamps Each 48c

287 E 4760—Post Brackets for Rail Track. Each, \$2.10

Detachable Water Bowls



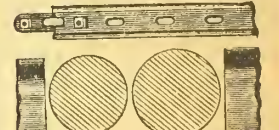
Easy to operate. The slightest pressure of the cow's nose opens the valve and allows water to flow as fast as cow can drink it. Bowl is made of iron, 8 1/2x3 1/2 inches and has clamp for fastening to steel stall or may be screwed to wood upright. Tapped for 1/4-in. pipe (pipe not furnished).

287 E 4802—Bowl with over-feed connection. Ship. wt., 12 lbs. Price, each, \$3.15

287 E 4803—Bowl with under-feed connection. Ship. wt., 12 lbs. Price, each, \$3.25

Shipped from Factory near Chicago.

Steel Rod Track



Can be twisted and looped cold. Single lengths up to 250 feet.

287 E 4712—Rod Track 1 1/2 in. diam. Ship. wt., per ft., 1/2 lb. Price, per ft., 5 1/2c

287 E 4714—Rod Track 1 3/8 in. diam. Ship. wt., per ft., 3/4 lb. Price, per ft., 6c

Steel Rail Track

Holes punched every few inches for track hangers. Track may be bent cold to make various curves, 6, 9 and 15 foot lengths only. One coupling and bolts are furnished with each length of track. Ship. wt., per foot, 1 1/2 lbs.

287 E 4716—Steel Rail Track including Connecting Plate and Bolt. Price, per foot, 25c

Shipped from Factory near Chicago.

Wisconsin Wood Bar Stanchions

Oil seasoned Hard Maple Bars. Pressed Steel Ends. Malleable Iron Latch. Adjustable to 5, 6, 7 or 8-inch opening, furnished with or without guard. Eye-bolt, length, 6 inches, furnished to attach stanchion at top, and with short length of chain at bottom of stanchion gives them much more flexibility than pivot style. Fits framework in old barns easily. Weight, without guard, 16 pounds; weight, with guard, 18 pounds. Height, 44 1/2 inches. End of chain to top of chain, 5 1/4 inches.

187 E 4778—Wood Bar Stanchion, without guard. Price, each, \$2.70

187 E 4780—Wood Bar Stanchions with guard. Price, each, \$3.35

Lots of 6 or more shipped direct from Factory near Chicago.

287 E 4782—Wood Bar Stanchions less guard. Price, each, from Factory, \$2.55

287 E 4784—Wood Bar Stanchions with guard. Price, each, from Factory, \$3.20

Wisconsin Steel Stalls

Stalls are made of 1 1/2-inch tubing. Width, 3 feet 6 inches. Height, 5 feet 6 inches. Steel partition: Height, 36 inches from floor. Length, 3 feet 3 inches from frame. Malleable iron clamps connect all joints. Each stall consists of one cross head, one upright center tube, one stall partition, one steel stanchion 287E5956 and necessary bolts and clamps. Regularly furnished for concrete floors.

287 E 4788—Stall Partition only. Triple End, enameled. Ship. wt., 15 lbs. Price, each, \$2.15

287 E 4789—Malleable iron flange for stall or partition when used on wood floors. Price, each, 62c

287 E 4790—6-inch Hook Bolt. Ship. wt., 1 lb. Price, each, 25c

Shipped from Factory near Chicago.

Make your barn give longer service. Coverall barn paint on page 747.

Montgomery Ward & Co. Chicago

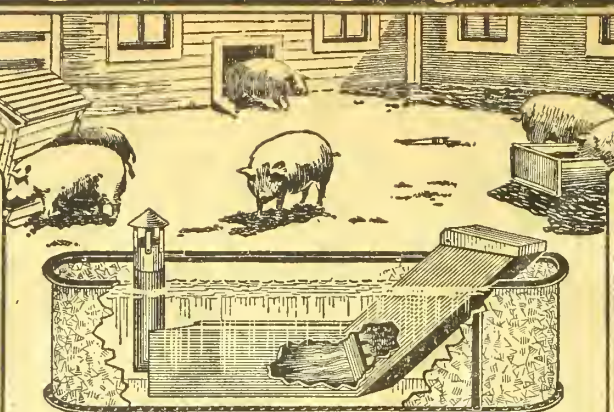
Hog Supplies



Improved Steam Feed Cooker

Quick heater. Will raise steam in a few minutes. Burns coal, coals, or up to 30-in. cord wood. Has cast iron 33-gallon reservoir. Grates for burning coal are extra. Furnished with or without pump for filling. Regularly furnished with safety pop valve, 2-foot hose, gauge cock, faucet for drawing off water and one set of pipes for barrel. Barrel not furnished. Steam tested to 20 lbs. pressure. Requires six-inch pipe.

287 E 3556—Improved Climax Tank-Heater without pump or coal fixtures. Ship. wt., 340 lbs. **\$36.95**
287 E 3557—Pump for filling reservoir. Ship. wt., 15 lbs. Price **\$7.75**
287 E 3558—Extra for heavy fire box and coal grate. Ship. wt., 150 lbs. Price **\$9.65**
 Shipped from Factory in Central Iowa.

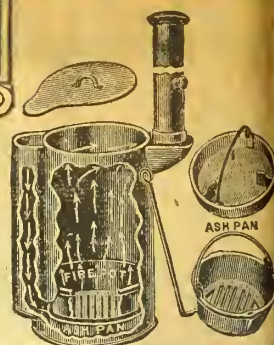


Submerging Tank Heater

For heating outdoor Stock Watering Tanks. Made of 14-gauge holler plate. Heat box is 30 inches long, 12 inches wide and 8 inches high. Joined together at an angle of 45 degrees. Heater burns any kind of fuel—coal, wood, coals, etc. Coal Heater, provided with Basket Grate. Will burn wood 30 in. long. Heater may be weighted or strapped down to tank, strap is included, also hook to pull out grate for cleaning when heater with coal grate is ordered.

287 E 3595—Tank Heater without grate. **\$10.45**
 Wt., about 75 pounds. Price **\$11.80**
287 E 3596—Tank Heater with coal grate. Wt., about 85 pounds. Price **\$11.80**
 Shipped from Factory in Central Iowa.

Climax Tank Heaters Self Sinking



The body of heater, including a draft tube, is solid cast iron in one piece. It will remain in any place in tank in which it is set. Ash pan is full size and has a carrying bail so that it can be lifted out. Grate, or firepot, also furnished with bail. Will burn any kind of fuel. Sets on 1/2-inch legs to let water under heater. Has cast elbow at top to which smoke stack is attached so that cover is moved independently of the smoke stack. Each heater furnished complete with grate, ash tray, 2-foot stack, damper, hood and poker.

287 E 3590—Cast Tank-Heater. Diam., 12 in., height, 24 in. Ship. wt., 135 lbs. **\$8.90**
287 E 3591—Cast Tank-Heater. Diam., 14 in., height, 24 in. Ship. wt., 175 lbs. Price **\$10.95**
 Shipped from Factory in Michigan or Western Illinois.
287 E 3592—Cast Tank-Heater. Diam., 16 in., height, 24 in., weight, 195 lbs. Each **\$13.35**
 Shipped only from Factory in Western Illinois.

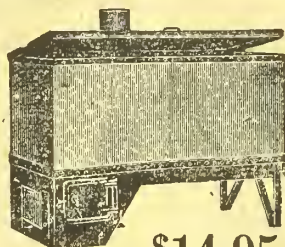
Climax Stock Feed Cooker

\$10.50 up

For Cooking Feed for Hogs, Poultry, Sheep, also invaluable on farm for heating soap, rendering lard, making soap, scalding hogs and innumerable other uses.

The jacket is made of one continuous sheet of cold rolled steel, which leaves no joints to open up and take in air, and is supported at bottom with a heavy wrought iron band. The kettle is made of smooth cast iron, is easily cleaned. The inside arrangement includes a cast iron flame deflector set so that the fire and smoke pass around the kettle before going into the smoke pipe, thus bringing the entire bottom of kettle in direct contact with the heat and fire. Coal grates, elbows and pipe are extra.

Farmers' Choice Feed Cooker



\$14.95

A big capacity cooker with low fuel cost. An excellent economical heater for cooking large quantities of stock feed, holling water for scalding hogs, etc. The bottom of the furnace extends the full length covering ash pit. All joints are perfectly made, so that the boiler can be set up in any building just as safely as a stove.

Boiler is made of 20-gauge galvanized steel. Bottom edge of boiler has 1-inch flange projecting below bottom, so that the boiler sets down over the upper edge of the furnace. The upper edge of the boiler is supported with 1-inch angle steel, making it very rigid and durable. The fire box has a heavy cast iron grate and back wall. Will burn wood, coal or coals. All boilers are made removable.

First 3 sizes have grate 12 1/2 x 22 inches. Large size 12 1/2 x 26 inches.

Suitable for hogs, calves, sheep or other small animals. Water feeds into drinking pan automatically as needed. Pan is large enough to accommodate two animals at a time.

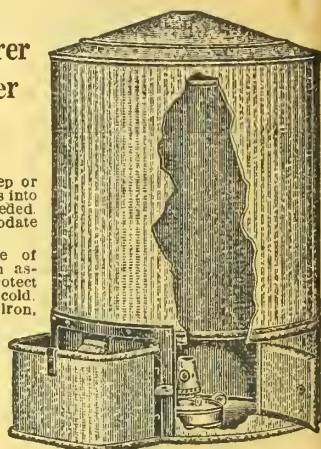
Outer casing of tank is made of galvanized steel and lined with asbestos paper which helps to protect the water in tank from heat or cold. The drinking pan is made of cast iron, easily removed for cleaning. The water from tank is fed down through an opening at bottom of tank into the outside cast iron pan. The flow of water from tank to drinking pan is regulated by a vacuum. No valves required. Water pan is heated with an oil lamp with large fuel, holds oil enough to run 36 hours.

Height of tank, 37 inches. Diameter, 30 inches. Made in two sizes—50 and 70-gal. cap. Ship. wt., about 165 lbs.

287 E 3322—50-gallon capacity. **\$19.50**

287 E 3323—70-gallon capacity. **20.50**

Shipped from Warehouse near Chicago.



Climax Hog Waterer and Heater

\$19.50

| Article Number | Price at Factory | Size Gal. | Average Height over All, Inches | Diameter Kettle, Inside Flange, In. | Ship. Wt., Complete Pounds |
|----------------|------------------|-----------|---------------------------------|-------------------------------------|----------------------------|
| 287 E 3524 | \$10.50 | 15 | 28 | 20 | 105 |
| 287 E 3525 | 11.75 | 20 | 28 | 23 | 130 |
| 287 E 3526 | 15.75 | 30 | 29 | 27 | 175 |
| 287 E 3527 | 17.25 | 45 | 30 | 29 | 205 |
| 287 E 3528 | 19.65 | 55 | 30 | 32 | 265 |
| 287 E 3529 | 22.80 | 65 | 30 | 34 | 290 |
| 287 E 3530 | 25.50 | 75 | 34 | 36 | 335 |

287 E 3524—Coal grates at factory. State size of cooker or jacket. Weight, from 30 to 70 pounds. **\$4.25**

287 E 3526—Pine cover; hinged. At factory. State size of cooker. Weight from 12 to 30 pounds. Joint of 6-inch pipe and damper, extra **\$1.40**

287 E 3528—Elbow, one joint 6-inch pipe and damper, extra **.85**
 Shipped from Factory in Iowa or Michigan.

Iowa Feed Cooker and Water Heater

Cooked food means "early to market and top prices". A most economical method of feeding. This durable, large capacity, easy to care for cooker should be your choice. Made to burn wood or coal as noted in table below. Boiler made of heavy galvanized steel, furnace is complete and consists of door frame grate, plate, hearth and legs. 100-gallon size has double hinge covers as shown in illustration, 35 and 50-gallon sizes have single hinge covers and 20-gallon size has single cover to lift off. You will find thorough satisfaction in this feed cooker.



| Art. No. | Cap. Gal. | Fuel | Lgth. In. | Wt., Lbs. | Price |
|------------|-----------|--------------|-----------|-----------|--------|
| 287 E 3580 | 20 | Wood only | 24 | 60 | \$9.95 |
| 287 E 3581 | 35 | Wood only | 30 | 72 | 12.35 |
| 287 E 3582 | 50 | Wood only | 30 | 110 | 16.80 |
| 287 E 3583 | 100 | Wood only | 46 | 145 | 23.60 |
| 287 E 3584 | 35 | Wood or coal | 30 | 120 | 18.95 |
| 287 E 3585 | 50 | Wood or coal | 30 | 140 | 20.95 |
| 287 E 3586 | 100 | Wood or coal | 46 | 175 | 29.25 |

Shipped from Factory in Western Illinois.

Valveless Hog Oiler

The New Climax Hog Oiler does the work the simple and easy way. Set one up in the hog lot—the hogs rub against it and the oil is applied exactly where it will do the most good. Surplus oil is drained to recess on top of projecting leg which acts as rubber for under part of hog's body. Use any kind of oil. Crude oil may be used. Our special medicated oil will get the quickest results, being especially made for this purpose.

Main standard is of steel, base and rubbing bars of cast iron. Galvanized steel oil tank. Lag screws furnished for fastening down. Height, 31 inches. Ship. wt., 35 pounds.

287 E 3320—New Climax Hog Oiler **\$5.35**

Climax Medicated Hog Oil.

For use with any hog oiler or rubbing post.
187 E 3332—1-Gal. Can, jacketed. Wt., 10 lbs. Price **97c**
187 E 3334—5-Gal. Can, jacketed. Wt., 50 lbs. Price **\$2.00**
287 E 3336—30-Gal. wood barrel. Wt., 350 lbs. Price **\$12.75**
 Shipped from Warehouse near Chicago.

Climax Cast Iron Hog Troughs



| Art. No. | Length | Ship. Wt. | Each |
|------------|--------|-----------|--------|
| 487 E 3380 | 2 feet | 28 pounds | \$2.15 |
| 487 E 3381 | 4 feet | 58 pounds | 3.95 |
| 487 E 3382 | 6 feet | 78 pounds | 4.75 |

| Article Number | Price | Length Feet | Width Inches | Depth Inches | Ship. Wt. Lbs. | Cap. Gals. |
|----------------|---------|-------------|--------------|--------------|----------------|------------|
| 287 E 3568 | \$14.95 | 4 | 24 | 12 | 175 | 60 |
| 287 E 3569 | 16.25 | 4 | 24 | 18 | 200 | 90 |
| 287 E 3570 | 17.80 | 5 | 24 | 18 | 220 | 115 |
| 287 E 3571 | 22.25 | 6 | 28 | 18 | 290 | 160 |

Shipped from Factory in Northern Indiana.

Caldron Kettle

\$5.50



Made of heavy smooth cast iron with wide flange rim. Extra heavy at bottom. For cooking feed, rendering lard, etc.

| Article Number | Cap. Gal. | Ship. Wt., Lbs. | Price Each |
|----------------|-----------|-----------------|------------|
| 287 E 3546 | 15 | 50 | \$5.50 |
| 287 E 3547 | 20 | 60 | 6.10 |
| 287 E 3548 | 30 | 95 | 8.45 |
| 287 E 3549 | 45 | 115 | 10.40 |
| 287 E 3550 | 60 | 160 | 13.45 |
| 287 E 3551 | 75 | 180 | 14.45 |
| 287 E 3552 | 75 | 215 | 5.40 |

Shipped from Factory in Iowa or Michigan.



16-Gauge Steel Jackets

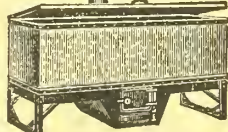
For use in connection with iron kettles in cooking stock food, rendering lard, soap, etc. Prices do not include container or kettles. Burns wood, coals, etc. not made for coal. All made of 16-gauge steel. Height, 28 inches. Can fit all size caldron kettles from 64 inches to 116 inches in circumference. Elbow, one joint of 6-inch pipe with damper are extra.

Shipped from Factory in Iowa or Michigan.

| Article Number | Circum. Inches | Ship. Wt., Lbs. | Price Each |
|----------------|----------------|-----------------|------------|
| 287 E 3534 | 66 | 55 | \$5.75 |
| 287 E 3535 | 78 | 70 | 6.45 |
| 287 E 3536 | 88 | 80 | 7.25 |
| 287 E 3537 | 96 | 90 | 8.05 |
| 287 E 3538 | 102 | 105 | 9.25 |
| 287 E 3539 | 109 | 110 | 10.25 |
| 287 E 3540 | 116 | 120 | 11.10 |

287 E 3542—Elbow, one joint 6-inch pipe and damper. Price **.85c**

Lightning Feed Cooker



Has heavy cast iron grate and back wall. Fuel door and ash door. Grates are 14x26 inches, suitable for coal, wood or coals. One joint of 6-inch stovepipe with each cooker. Size of cookers; width, 28 inches; depth, 24 inches.

287 E 3574—Capacity 6 barrels. Length, 5 ft. **\$26.25**
 Wt., 255 lbs. each.
287 E 3575—Cap. 7 bbl.; length, 6 ft. Wt., 300 lbs. **\$31.25**
287 E 3576—Cap. 8 bbl.; length, 7 ft. Wt., 325 lbs. **\$35.75**
287 E 3577—Cap. 9 bbl.; length, 8 ft. Wt., 355 lbs. **\$39.95**
 Each.
 Shipped from Factory in Northern Indiana.

Climax Galvanized Steel Hog Troughs

In sizes from 2 to 8 feet inclusive. The 2-foot size is especially desirable for breeding pens and farrowing houses. The 4, 6, and 8-foot sizes are popular in the hog yards. Where longer troughs than 6 and 8 feet are desired we recommend purchasing two, on account of the unwieldy large size. Have rounded bottoms for easy cleaning. Freezing cannot affect them. Heavy iron cross bars one foot apart prevent the hogs shoving along in the trough.

| Article Number | Price Each Chicago | Height Inches | Width Inches | Length Feet | Shipping Weight Pounds | Price Each in Lots of 6 or more direct from Factory near Chicago |
|----------------|--------------------|---------------|--------------|-------------|------------------------|--|
| 487 E 3300 | \$1.19 | 6 | 9 1/4 | 2 | 6 1/2 | \$1.16 |
| 487 E 3301 | 1.35 | 6 | 9 1/4 | 4 | 13 | 1.75 |
| 487 E 3302 | 2.35 | 6 | 9 1/4 | 6 | 19 | 2.18 |
| 487 E 3303 | | 6 | 9 1/4 | 8 | 24 | 2.80 |

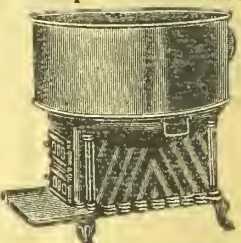
Automatic Stock Fountain



Easily attached to barrel or tank and held in place by strong lock nut on the pipe, and one bolt. The body is made of cast iron with double drinking chamber. The float ball is made of brass and will not rust. Float enclosed within covered chamber outside the barrel, open at the top, leaving it easy to get at, but well protected. Shipping weight, 14 lbs.

487 E 3306—Price, **\$2.25**

Improved Furnace Caldron



\$16.50

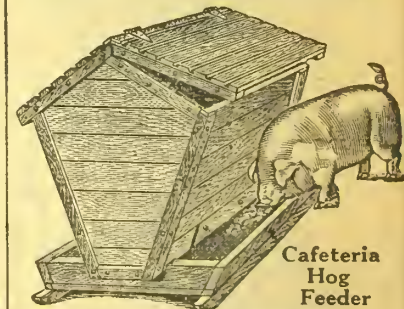
Cooks feed, renders lard, heats water, etc. Drum is made of holler steel. Lower part and firebox of smooth cast iron. The construction is such that it allows the heat to instantly surround the drum making it a quick and economical heater and cooker. Equipped with large fire box and tight fitting doors. Inner container or kettle is made of heavy iron and may be removed for other uses when desired. Prices include furnace complete with kettle but no pipe (requires 6-inch pipe). Coal grate fixtures are extra.

| Article Number | Size Gals. | Ship. Wt., Lbs. | Price Each |
|----------------|------------|-----------------|------------|
| 287 E 3500 | 15 | 130 | \$16.50 |
| 287 E 3501 | 20 | 180 | 19.20 |
| 287 E 3502 | 30 | 220 | 24.60 |
| 287 E 3503 | 45 | 265 | 24.60 |
| 287 E 3504 | 60 | 340 | 31.50 |

Extra for Coal Grate Fixtures

| Article Number | Size Gals. | Ship. Wt., Lbs. | Price Each |
|----------------|------------|-----------------|------------|
| 287 E 3506 | 15 | 35 | \$2.30 |
| 287 E 3507 | 22 | 40 | 2.75 |
| 287 E 3508 | 30 | 48 | 3.65 |
| 287 E 3509 | 45 | 60 | 4.25 |
| 287 E 3510 | 60 | 72 | 4.90 |

Shipped from Factory in Iowa or Michigan.



Cafeteria Hog Feeder

Holds 25 Bushels of Shelled Corn. Made with three compartments, a large bin for ear, shelled corn or ground feed; two smaller bins, one for tankage, and the other for minerals or stock powders. Feeder is made 6 feet in length, height, 47 inches, width, 48 inches. Built in sections of seasoned timber, painted with oil paint. With a Cafeteria Hog Feeder and proper feed hogs will eat what they need without wasting. Shipped in knocked-down form, with necessary bolts, and can be set up in a few minutes. It is set on runners having an attachment to hitch a team. Shipping weight, 350 pounds.

287 E 3340—Price, **\$15.95**
 Shipped from Factory in Missouri.

Poultry Raisers Supplies

Automatic Poultry Fountain

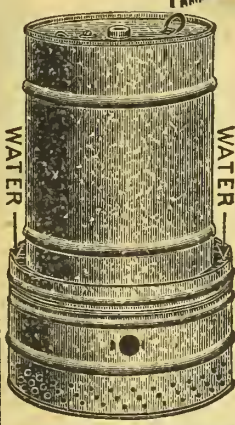
Galvanized steel. Keeps contents clean. Water may be warmed without danger of breaking fountain. To fill, stand on end and lay flat while in use. Will feed automatically as chickens drink.

87 E 3786—1 gallon, wt., 1 1/4 lb. Each..... \$.79
 87 E 3787—2 gallon, wt., 2 1/2 lbs. Each..... .89
 87 E 3788—3 gallon, wt., 3 1/2 lbs. Each..... 1.05

Jar Fountain

Will fit any ordinary Mason Jar, pints or half-gallon size. Steel pan. Jar easily removed for filling or cleaning. Price does not include jar. Shipping weight, 4 oz.

87 E 3822—Price, One only. Each..... \$.12
 87 E 3823—Price, per dozen..... 1.28



Climax Poultry Fountain Heater

Helps to keep the hen-house warm for chicks taken from the brooder.

Tank holds 8 gallons of water, sufficient for flock of 75. Made entirely of heavy galvanized steel. Supplies water automatically to trough extending clear around the tank so that a dozen chickens or more may drink at once. The top of the tank is concave, the center being about one inch lower than the outer edge, permitting easy filling with water, by removing filler plug. Heater lamp has large brass burner. Oil reservoir holds three pints and has 1/2-inch flange around top edge to fill with water preventing all danger of explosion. The fountain is made in two pieces. The bottom part is complete with galvanized bottom which prevents any possibility of floor catching fire from the lamp. By removing the bottom section the top part of fountain can be set directly on the ground, making an ideal waterer for the summer months. Shipping weight, crated, 27 pounds.

287 E 3750—Price, complete..... \$3.50

Shipped promptly from Warehouse near Chicago.

Aluminum Leg Bands



Ship. wt., 3 oz. per 100. Large raised figures.

87 E 3836 —For 25 bands No. 1 to 25..... 16c
 87 E 3837 —For 50 bands No. 1 to 50..... 28c
 87 E 3838 —For 100 bands. No. 1 to 100..... 52c
 10c per 100 extra for special numbering.

Poultry Grit Box

A most economical way to feed grain and grit to poultry.

Galvanized steel. Each compartment holds 3 pints of feed.

Sloping hinged cover of hopper prevents chickens roosting on top. Nail holes in back to hang hopper against wall. The automatic supply construction practically eliminates waste and keeps the grit, oyster shell and charcoal clean and sanitary. Shipping weight, 2, 3, and 3 1/2 lbs.

87 E 3782—2 compartments. Each..... 59c
 87 E 3783—3 compartments. Each..... 86c
 87 E 3784—4 compartments. Each..... 99c

New Climax Oats Sprouter

\$3.75

Grows tender, green oat sprouts quickly. Helps increased production and insures plenty of green food at a time when none other is available.

You will get more eggs by feeding your chickens green food. Oats soaked 24 hours, then placed in the pans and sprinkled a few times a day will quickly sprout and supply green food for your chickens during the entire winter season. Consists of 8 galvanized pans, 11x14 1/2 inches, and 1 1/2 inches in depth. The upper 7 pans have perforated bottoms to allow the proper drainage while the bottom or drip pan is solid to catch all extra moisture.

Will grow succulent oats at one time to care for 100 to 150 hens. Frame is made of galvanized steel, about 40 in. high. Shipping weight, about 20 lbs.

187 E 3755—New Climax Green Oats Sprouter. Price..... \$3.75



Climax Feed Trough

23 in. long 8 in. wide. Feeds 24 chickens at a time. Three compartment feed box. Top and sides are hinged and can be turned back to fill feed trays. Galvanized steel. Ship. weight, crated, 10 lbs.

187 E 3780—Price..... \$2.48

Hen House Feeder

Made of Galvanized steel and consists of a long pan, 5 in. wide, with a sliding cross bar top that can easily be taken off, for filling or cleaning.

87 E 3801—Length, 23 1/2 in. Shipping weight, 1 1/4 lbs. Each..... 69c



Climax Fountain

Galvanized steel with strong hand ball for carrying. Bent wire holders at top hold ball upright. 1 1/2 lbs.

87 E 3794—2-qt. size. Weight, 1 1/4 pounds. 63c
 87 E 3795—4-qt. size. Wt., 2 1/2 lbs. 75c
 87 E 3796—8-qt. size. Wt., 5 lbs. 89c
 87 E 3797—12-qt. size. Wt., 3 1/2 lbs. 98c

Winter Fountain and Heater

\$1.95

Made entirely of galvanized steel supplied with heater lamp. Don't allow your chicks to drink cold water. It increases the egg yield because our winter fountain and heater keeps the water at the right temperature day and night in the coldest weather. It requires less than a quart of oil a week. The water tank is made of galvanized sheet steel and holds two gallons, sufficient for flock of 20. Ship. wt., 6 lbs.

187 E 3806—Price, complete..... \$1.95



Favorite Egg Carrier

Made of wood. Holds 144 eggs, has 4 layers of 36 squares each. Cover has patent fastener, easily and quickly locked or unlocked.

Light and strong. Wt., 7 1/4 lbs.

187 E 3876—Price..... 94c
 87 E 3872—Fillers, per set. Price..... 18c



Shipping Coop

Hinged door in top. Removable ends. Capacity, 100 lbs. of chickens.

Substantially constructed of hardwood. Shipped knocked down. Can be returned to the shipper at small expense. Length, 43 in.; width, 26 1/2 in.; depth, 12 in. Ship. wt., 35 lbs.

187 E 3884—Price, each..... \$2.20

Shipped promptly from Stock at Chicago.



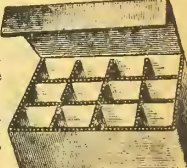
Fold-In Egg Carrier

Holds 12 Dozen Eggs. Very Popular. Folded flat when empty, by removal of top and bottom. Fillers are also collapsible. Has wood slats on heavy steel wire corner connections. Light and convenient. Furnished complete with fillers for 12 dozen eggs. Ship. wt., 6 lbs.

187 E 3870—Price, each..... 48c
 87 E 3872—Fillers, per set for 12 dozen eggs. Price..... 18c

Parcel Post Carrier

Made of corrugated fiber board. Walls are of double thickness. The cellular construction cushions the eggs. Made to comply with postal regulations in four sizes with gummed address label. Weight, 3 doz. size, 1 lb.



Bulis Egg Carrier

Shipped knocked down flat, easy to put together. Space for name and address. Wt., 7 oz. each, 1 dozen size; 29 oz. each, 4 dozen size.

Prices For Lots of 25

| Article No. | 1 doz. size | 2 doz. size | 3 doz. size | 4 doz. size |
|-------------|-------------|-------------|-------------|-------------|
| 87 E 3854 | \$1.85 | \$2.98 | \$3.95 | \$5.05 |

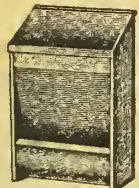
We do not sell less than a full package.

Tip-Top Feed Hopper

Galvanized Steel. Has holes to hang on wall. Especially adapted for dry mash.

Hopper holds 12 to 15 lbs. of feed. Outside height, 18 1/2 in.; length, 12 in.; depth, 6 1/2 in. Shipping weight, 7 lbs.

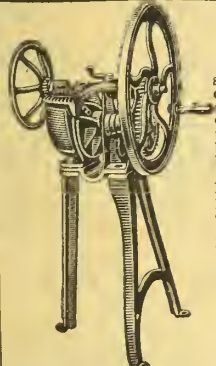
187 E 3778..... \$1.48



Beuoy Capon Set

Consists of Humane Spreader, Knife, Automatic Remover, combination hook and probe, and hooks and cords for fastening bird, complete instruction for using, including book on "What's a Capon and Why."

87 E 3826—Set complete. Ship. wt., 6 oz. \$3.40
 87 E 3827—Book only, postpaid..... .10



Humphrey Green Bone Cutter

This machine will cut all sorts of poultry food such as corn on the cob, charcoal, stale bread, vegetables, etc. Cutters are made of the best tool steel. Cuts up the chip of bone so that it readily breaks apart.

Simple in construction. Has only three working parts; nothing to get out of order.

287 E 3080 —No. 1, hand power. Popular size for flocks, 100 to 200 hens. Ship. wt., 125 lbs. Price..... \$17.95
 287 E 3081 —No. 2, Small power with 12x2 1/2 in. pulley (no crank). Requires 1 H. P. 300 R. P. M. For flocks, 200 to 400 hens. Ship. wt., 120 lbs. Price..... \$19.90

287 E 3082—No. 2 1/2 Hand and Power with crank and 12x2 1/2 in. pulley. Ship. wt., 135 lbs. Power required, 1 H. P. For flocks, 200 to 400 hens. Price..... \$21.85

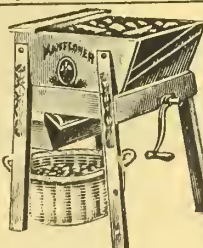
Shipped from Factory near Chicago.

New Automatic Feeder and Exerciser

Will give chickens as much exercise in winter as in summer.

All the grain is eaten, not a particle is wasted or left to attract vermin, the grain is eaten clean, it aids egg production, besides your poultry runs in clean air, no stifling clouds of dust. Capacity, 6 1/2 quarts.

187 E 3906—One in a package. Shipping wt., 2 1/2 lbs. Price..... 96c
 187 E 3907—Two in a package. Shipping weight, 4 1/2 lbs. Price..... \$1.92



Chicken Roosts

All poultry raisers agree that the greatest drawback to successful poultry raising has been lice.

We don't care how many there are or how badly they are scattered, our Sure-Catch Mite Traps will catch them at and keep the fowls free of mites, and that part of the blood which has been feeding them will be turned into eggs and flesh.

Roosts are made of clear seasoned timber fitted with bent iron hanger at each end and are easily erected in any hen house. Roosts are furnished with two traps, one at each end.

187 E 3915—Length, 4 ft. Weight, 3 lbs. Each..... 39c
 187 E 3916—Length, 6 feet. Wt., about 4 1/4 lbs. Each..... 69c
 187 E 3917—Length, 8 feet. Wt., about 5 1/2 lbs. Each..... 98c
 187 E 3918—Length, 10 feet. Wt., about 7 lbs. Each..... 98c
 187 E 3919—Mite traps only, complete with spring fastener to fit any size perch. Per dozen..... \$1.35

Automatic Chicken Delouser

Made entirely of galvanized steel. An effective and mechanical delouser. One quart of oil gives 800 applications, or enough for 50 chickens for one month. Made of galvanized iron, 11 1/2 in., depth, 4 1/2 in., width, 8 1/4 in.

Automatically delouses chickens passing through it. Install in front of the small poultry house door.

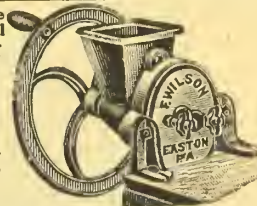
187 E 3776—Automatic Poultry Delousing Trap with one gallon can of oil. Ship. wt., 12 lbs. Price..... \$4.50

Wilson Dry Bone and Shell Mill

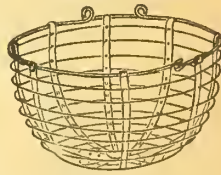
For grinding dry bones, oysters and clam shells, grit, gravel stones, old crockery, glass, charcoal, corn and all sorts of grain.

Splendid in the house for grinding dry, stale bread, crackers, roots, barks, etc. It will not grind green bones or wet substances. Grinding surfaces are of the hardest material and will last for years. Has a very simple adjustment for coarse or fine grinding. Diameter of balance wheel, 20 inches. Ship. wt., 33 lbs. Not Mailable.

187 E 2922—Price..... \$5.40



Hens' Nests



Good heavy wire Nests. Shipping weight, No. 1, per dozen about 8 lbs.; No. 2, about 10 pounds.

187 E 3890 —No. 1, 13-inch diameter, 6 1/2 in. deep, copper wire mesh and 8 flat steel ribs, coppered. Price, per doz..... \$1.50
 187 E 3892—No. 2, 14-inch diameter, 8 inches deep, coppered wire mesh and 8 flat steel ribs, coppered. Price, per dozen..... \$2.40

Poultry Marker

To punch hole in web between toes of poultry. Handy and effective. Bright finish. Weight, 1/4 oz.

87 E 3832—18c

Root and Vegetable Cutter for Poultry

Cuts all roots and vegetables, such as beets, carrots, turnips, cabbage, potatoes, etc., into fine pieces. Cutter turns easily and cuts rapidly. Has adjustable knives. Cannot choke. The feed is left in long thin strips. Shipping weight, 45 lbs.

287 E 3086..... \$5.90



Wilson Green Bone Cutter

Is especially made for cutting green bone direct from the butcher shop and green bones and meat scraps from the table. Excellent for cutting vegetables.

It is fitted with two oil tempered steel knives which can be replaced at any time.

187 E 2926—With crank. Ship. weight, 35 lbs. Price..... \$9.95
 187 E 2928—With balance wheel. Ship. wt., 55 lbs. Price..... \$10.70
 87 E 2930—Extra knives. Ship. wt., 1 lb. Each..... 95c

Root Cutter

Strong wood frame, large hopper, cutting disc on crank shaft, easily operated. Slices roots and vegetables in long thin slices, at the same time separates the feed from clay, gravel, etc., by an iron grate at the bottom of the feed chute. Juices and nutritious qualities are retained. Capacity by hand, 20 to 40 bushels per hour; by power, 40 to 70 bushels per hour. It requires one H. P. to run power machine. Removable knives.

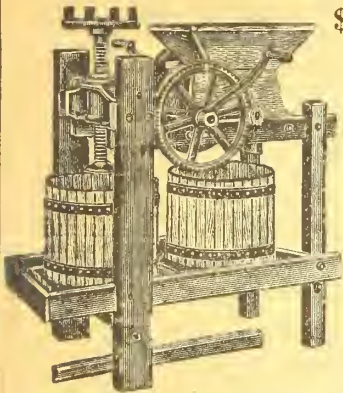
287 E 3090—No. 1 Hand Cutter. Shipping weight, 125 lbs. Price..... \$12.95
 287 E 3091—No. 2 same size with crank and pulley for power. Ship. wt., 140 lbs. Price..... \$14.75
 287 E 3092—No. 3 Power Root Cutter. Made larger, heavier and stronger. Capacity, 150 to 200 bushels per hour. Ship. wt., 165 lbs. Furnished with both pulley and crank. Price..... \$26.25

Shipped from Factory in Michigan.

Cider Mills and Farm Necessities

Senior Cider Mill

\$34¹⁵



Capacity, 50 to 60 bushels or 125 to 150 gallons per day. Strictly high grade, carefully constructed. Will grind large or small apples. This mill with its rapidly revolving wood cylinder, with sharp edged steel pins, quickly crushes the fruit thoroughly thereby

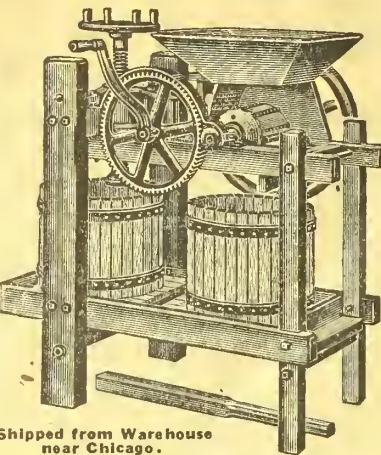
breaking all the juice cells and making certain that the grinder will extract every drop of juice. Two cranks, one on each side enable two boys to run the machine.

Heavy hardwood frame, bolted. Press screw heavy steel. Large size hopper, force feed. Tuhs of hardwood slats with bands. Diameter of Press tubs 14 in., height, 13 1/2 in. Shipping weight, 330 pounds.

Shipped from Warehouse near Chicago.
287 E 6419—Senior Cider Mill complete. **\$34.15**
Price, each. **\$34.15**
Clamp pulley 10x4 for belt power extra. Price, 1.40

Junior Cider Mill

\$17⁹⁵



In this illustration a part of hopper is removed to show the cylinder and inside working parts. The Complete hopper is same as shown on Senior mill No. 6419.

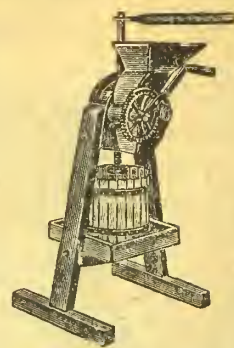
Here is one of the most popular junior cider mills made. Just the right size for the average farm. The strong wood cylinder with sharp edged steel pins is positive in rapidly reducing either large or small apples to a pulp so that the press will readily take out all the juice. Hopper is fastened to top of frame with a strong latch, which may be instantly unlatched, and entire hopper removed to allow quick and easy cleaning of all inner working parts.

Shipped from Warehouse near Chicago.

287 E 6418—Junior Cider Mill complete. **\$17.95**
Price, each. **\$17.95**
Clamp Pulley 8x4. Extra Price. 1.10

Force Feed Cider Mill

\$13⁹⁵



High grade single tub family mill. Geared cylinder crushes the apples and automatically forces them through. Has larger hopper and wider throat than is usually found in mills of this type. Has cast iron frame hopper. Wood cylinder with sharp edged steel pins work on same principle as Junior and Senior mills. Steel screw. Large balance wheel makes it run easily. Capacity 1 1/2 barrels of cider per day. Diameter of the tub, 9 1/2 inches. Height, 10 1/2 in. Shipping weight, about 180 pounds.

287 E 6417—Force Feed Cider Mill. **\$13.95**
Shipped from Warehouse near Chicago.
Clamp Pulley 8x4. Extra Price. **\$1.10**

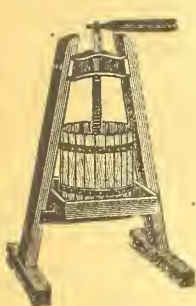
Cider Press Cloth

Made of 6-ply Cotton Cord expressly for straining juice in Cider Mill Tubs. Better and stronger than cheese cloth. With care will last several seasons. In 3 sizes, each size having stitched selvage on four sides. Made heavy and strong. All woven of 6-ply cotton cord.

87 E 6414—Size, 40x40 in. Wt., 1 1/4 lbs. Price, each. **.85c**
87 E 6413—Size, 50x50 in. Wt., 1 1/2 lbs. Price, each. **\$1.25**
87 E 6412—Size, 60x60. Weight, 2 1/4 lbs. Price, each. **\$2.15**

Fruit Press

\$7³⁵



Strong substantial Fruit Press with heavy wood frame securely bolted. Heavy cast cross head and steel screw smoothly finished. Tub is made of smooth hardwood slats with wrought iron hoops riveted. Size of tub, 9 1/2 in. diam. and 10 1/2 in. high. Ship. weight, about 60 lbs.

287 E 6416—Fruit Press. **\$7.35**
Price, each. **\$7.35**

Don't Strain or Tug with Rusted Bolts or Nuts Don't Break Parts

Use Rustsolvo

The Product with a Thousand Uses

Rustsolvo cuts Rust, Carbon, Red or White Lead, Shellac, Paint, Tar, Dried Grease also Green Corrosion on Batteries—without injury to Metal, Rubber, Wood, Cloth, or the hands.

Rustsolvo is a free flowing liquid, non-inflammatory and with a non-offensive odor.

There is no need to strain and tug with parts stuck from rust and then break them. A few drops of Rustsolvo and the parts can be removed—easily—without spoiling the threads or parts. How many times have you tugged and strained to loosen a rusted nut? How many times have you broken a rust bolt or nut or some other part and then found you didn't have another and couldn't finish the job until you could get one.

No need to break parts. No more need for delay.

Plumbing and Steam fitting work: will free elbows, tees, flanges, valves and general fittings.

Test it—Prove its Merits by Actual Use.

Try Rustsolvo. See for yourself how much time and trouble it will save for you. It takes just a few drops on a rusted nut to convince you that RUST-SOLVO does the work.

No. 87 E 812 No. 87 E 813 No. 87 E 814 No. 87 E 815
Gallon Can 1/2 Gal. Can Quart Can Pint Can
\$6.00 \$3.25 \$2.00 \$1.00

Shipped by prepaid parcel post.

Seed Corn Hanger

Price per Dozen Hangers **\$1⁷⁰**

Each One Holds 20 Ears of Corn

Made of galvanized wire. Each hanger holds 20 ears of corn and so arranged that none of the ears rub or touch each other. Ears hang in broken rows—leaving large air space.

Length of hanger 18 inches. Two or more hangers can be hooked together. Weight, per dozen, 7 pounds.

87 E 2826—Price per doz. **\$1.70**

Folding Delivery and Field Crates

39c

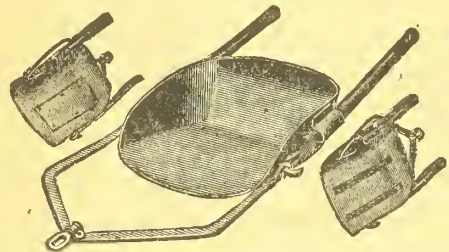
Capacity, one bushel level full. Folds into small space when not in use. Made of smooth wood. Corners are wired. Will stand an unusual amount of rough handling. Length, 18 inches; width, 13 1/2 inches; depth, 12 inches. Ship. wt., 7 1/2 lbs.

187 E 2610—Heavy Field or Delivery Crate. Price, **39c**

Contractors' Steel Drag Scraper

Made for heavy work in building, excavating, road making, farm work, etc. Bowl is pressed out of one piece of high carbon steel properly shaped to fill and clean easily. Cutting edge is rounded, allowing it to enter ground easily. Double runner scrapers have two runners of hardened steel securely riveted. Double bottom scraper have an extra bottom of hard steel riveted.

The bowl is made of No. 10 gauge high carbon steel. Heavy steel ball with swivel link on each ball. Handle sockets are steel plates solidly riveted. Climax scrapers may be had without reinforcement or with bottom plate or with runners. Handles are smooth hardwood.

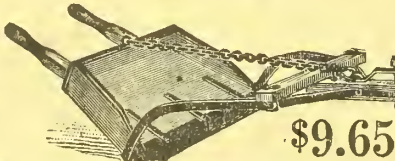


| Article No. | Prices Plain | With Runners | With Bottom Plate | Cubic Feet | Ship. Weight |
|-------------|--------------|--------------|-------------------|------------|--------------|
| 287 E 6280 | \$8.00 | \$8.75 | \$9.45 | 3 | 72 |
| 287 E 6281 | 8.40 | 9.10 | 9.80 | 5 | 90 |
| 287 E 6282 | 8.75 | 9.45 | 10.15 | 7 | 100 |

Shipped from Factory in Ohio.

Tongue Scraper

\$9.65



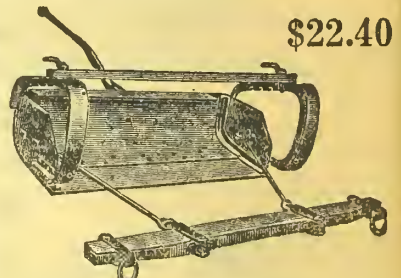
Especially designed for cutting and cleaning out ditches, moving large quantities of dirt, leveling, etc. Extra strong scrapers with tongue. Made of seasoned hardwood. No. 7 gauge steel blade, width, 4 1/2 in. The draw bars are made of steel and shoes of malleable iron. Hardwood tongue and cross beam thoroughly ironed, bolted and braced. Combination draw pin and wrench. Made in three sizes: 36-inch, 42-inch, and 48-inch.

| | |
|--|---------------|
| 287 E 6290—Width, 36 in. Ship. wt., 120 lbs. | \$9.65 |
| 287 E 6291—Width, 42 in. Ship. wt., 125 lbs. | \$9.80 |
| 287 E 6292—Width, 48 in. Ship. wt., 130 lbs. | \$9.95 |

Shipped from Factory in Ohio.

Climax Buck Scraper

\$22.40

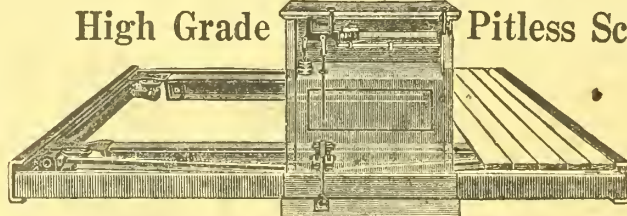


For making irrigation ditches, leveling land, building levees. Capacities given are actual and do not include what dirt is heaped up or pushed in front of the scrapers. The load may be carried any distance and deposited either in bulk or distributed evenly as the nature of the work may require. High carbon steel body, wrought iron rods and fittings, hard wood draw bars, cross-brace and handle. Runners can be adjusted to any angle desired.

| Article Number | Price | Size No. | Width Inches | Capacity Cubic Ft. | Shoes No. | Horse Req. | Ship. Wt. Lbs. |
|----------------|---------|----------|--------------|--------------------|-----------|------------|----------------|
| 287 E 6284 | \$22.40 | 6 | 42 | 8 | 3 | 2 | 240 |
| 287 E 6285 | 23.80 | 7 | 48 | 8 1/2 | 3 | 3 | 250 |
| 287 E 6286 | 26.60 | 8 | 60 | 10 1/2 | 4 | 4 | 310 |

Shipped from Factory in Ohio.

High Grade Pitless Scales



Have the satisfaction of knowing that your weights are correct. Order one of these High Grade Pitless Scales. They are guaranteed to meet requirements of all state laws. The pipe beam on our scale combines rigidity, strength, and few working parts. Furnished with double brass beam. Hardwood beam box, well constructed and nicely painted, fitted with lock and key. Building plane and directions with each scale. We will replace free any part that proves defective.

We do not include frame, platform or joists with our wood frame and wood joist style scales.

287 E 6369—High Grade Pitless Scale, 4-ton capacity. Steel frame, steel joists. Size of platform, 8x14 feet. Shipping weight, 1375 pounds. **\$115.00**

287 E 6370—High Grade Pitless Scale, 5-ton capacity. Steel frame, steel joists. Size of platform, 8x14 feet. Shipping weight, 1400 pounds. **\$117.30**

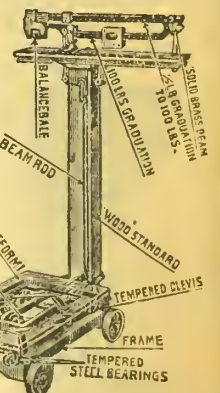
287 E 6371—High Grade Pitless Scale, 6-ton capacity, steel frame, steel joists. Size of platform, 8x14 feet. Shipping weight, 1500 pounds. Price, complete with beam box and double beam. **\$124.80**

High Grade Motor Truck Scales

287 E 6373—High Grade Motor Truck Scale, 10-ton capacity. Steel frame, steel joists. Size platform, 8x16 ft. Ship. weight, 3600 lbs. Price, complete. **\$215.00**
Shipped from Warehouse in Central Illinois.

Peerless Weightless Scale

Handiest and most suitable scale for farm, factory or store requirements. Beam is on level with eye, and weight is readily distinguished on either side of scale without bending.



No loose weights. Hard chilled bearings. Tool steel pivots. Brass beam with brass sliding poise on upper bar.

287 E 6346—Will weigh to 600 pounds on platform, size 16x22 1/2 inches. **\$26.50**

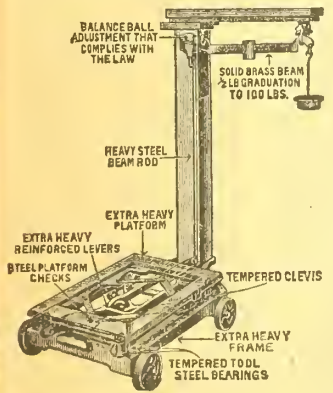
Shipping weight, 157 lbs. **\$26.50**

287 E 6347—Will weigh to 800 pounds on platform, 17x23 inches. Ship. wt., 165 lbs. **\$29.65**

287 E 6348—Will weigh up to 1,000 lbs. on platform, 18x25 inches. Ship. wt., 170 lbs. **\$33.00**

In setting up scale after purchase there is no necessity for adjustments.

Shipped from Warehouse in Central Illinois.



Climax Portable Platform Scale

Every Farm needs a good scale like our Climax for general weighing purposes. Built in compliance with all state laws. Bearings are self-aligning. Brass beam graduating from 1/2 to 100 lbs. on two larger sizes and from 1/2 to 50 lbs. on the smaller sizes.

287 E 6340—Will weigh to 600 pounds on platform, size, 16x21 inches. Ship. wt., 150 lbs. **\$20.65**

287 E 6341—Will weigh to 800 lbs. on platform. Size, 17x23 in. Price. **\$24.00**

287 E 6342—Will weigh to 1,000 lbs. on platform, size, 18x25 inches. Ship. wt., 160 lbs. Price **\$26.00**

At prices given above all models are equipped with tool steel pivots and hard chilled bearings. Sliding poise of brass.

Shipped from Warehouse in Central Illinois.

Supplies for the Bee Keeper

Section Honey Boxes

Extracting Supers, with Shallow Extracting Frames

Standard Dovetailed Hives

One Story
\$2.25

With frames, without foundation. This is the standard white pine dove-tailed hive, furnished in two sizes, eight frame and ten frame, with Hoffman brood frames.

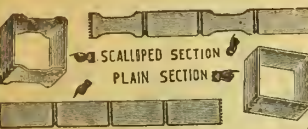
The covers are pine Excelsior lock-cap style and these hives have reversible double surface bottom boards. Foundation starters or division boards are not included. Either Extracting Supers or Comb Honey Supers may be used on this hive. Supers should be ordered separately.

187 E 5681—Set of 5 one-story 8-frame standard hives including Excelsior cover, reversible bottom, 8 Hoffman frames, no super, division board or foundation. Knocked down. **\$10.50**
Ship. wt., 130 lbs. Price, for five hives

187 E 5672—Single one-story 8-frame hive, K. D. Ship. wt., 26 lbs. Price, each

187 E 5683—Set of 5 one-story 10-frame standard hives, including Excelsior cover, reversible bottom, 10 Hoffman frames, no super, division board or foundation. K. D. Ship. wt., 145 lbs. Price, for five hives

187 E 5674—Single one-story 10-frame hive, K. D. Ship. wt., 30 lbs. Price, each



Made of clear basswood, smoothly polished, and free from defects. Made in plain (no beeway) or scalloped styles. The scalloped, or two beeway sections are 4 1/4 x 4 1/4 x 1 1/2 inches and as shown above. Plain sections come in two sizes listed below.

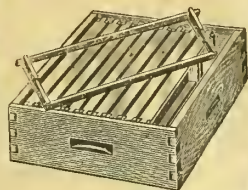
Sections are sold only in quantities as listed. Packed in heavy express weight corrugated paper packages insuring safe delivery. Be careful to order the proper style and size for your hives. Ship. weights: 100 sections, 8 pounds; 500 sections crated, 35 pounds.

487 E 5738—No. 1 quality. Scalloped. Size, 4 1/4 x 4 1/4 x 1 1/2 in. Price, per 100

487 E 5740—No. 1 quality. Plain. Size, 4 1/4 x 4 1/4 x 1 1/2 in. Price, per 100

487 E 5742—No. 1 quality. Plain. Size, 4 1/2 x 4 1/2 x 1 in. Price, per 100

487 E 5744—No. 1 quality. Plain. Size, 4 1/2 x 4 1/2 x 1 in. Price, per 500



This super is used in the production of extracted or chunk honey. Furnished both eight and ten frame sizes to be used on our one story standard hives. One or more of these supers may be added as the honey harvest increases. Standard shallow Hoffman frames are furnished 5/8 in. deep. Sections cannot be used in Extracting Supers. In crates of 5 only, knocked down.

187 E 5684—Set of 5 8-frame Extracting Supers with shallow Hoffman frames. No cover, bottom, foundation or division boards. Ship. wt., 37 lbs. Price, for 5 supers

187 E 5686—Set of 5, 10-frame Extracting Supers with 10 shallow Hoffman frames, no covers, bottom, foundation or division boards. Ship. wt., 42 lbs. Price, for 5 supers



Globe Bee Veil with Springs

Net made of French Cotton Tulle with silk face piece. Veil kept from face by five spring steel bars which button to studs on veil neck-band. Absolutely bee-proof.

87 E 5716—Globe Bee Veil. Weight, 5 oz. Price

Wax Comb Foundation

New Process Foundation, with perfect cells, easily worked by the bees. Clear in color. Medium brood sheets are used in frames without wiring. Light brood sheets must always be wired. Thin is used for starters in sections or brood-frames. Order by grade and size. Packed in heavy corrugated paper boxes insuring safe delivery. Not sold in less than 1-lb. lots. Ship. wt., 2 lbs. and 6 3/4 lbs.

87 E 5728—Medium brood. 7 1/2 x 16 1/2 in. 7 to 8 sheets per pound. Price, 1-lb.

87 E 5730—Light brood. 7 1/2 x 16 1/2 in. 9 to 10 sheets per pound. Price, 1-lb.

87 E 5732—Thin super. 3 1/2 x 15 1/2 in. 23 sheets per pound. Price, 1-lb.

87 E 5734—Extra thin. 3 1/2 x 15 1/2 in. 32 sheets per pound. Price, 1-lb.

87 E 5736—Extra thin. 3 1/2 x 15 1/2 in. 32 sheets per pound. Price, 1-lb.

Improved Bee Smokers

Latest Improved Model. Has perforated, steel grate liner, preventing burning the barrel. Has new style flexible cover hinge, permitting light fit of lid on fire chamber. Made of heavy tin with leather bellows, metal bound edge, and with patent draft.

87 E 5735—Standard Champion Smoker, diameter, 3 1/2 inches. Weight, 2 lbs. Price

87 E 5736—Jumbo Champion Smoker, diameter, 4 inches. Weight, 2 1/2 lbs. Price

87 E 5737—New Junior Smoker, 2 1/2 inches diameter. A good, serviceable smoker for a few colonies of bees. Weight, 1 1/2 lbs. Price

87 E 5738—New Junior Smoker, 2 1/2 inches diameter. A good, serviceable smoker for a few colonies of bees. Weight, 1 1/2 lbs. Price

Stingproof Canvas Bee Gloves

Made of heavy drill, closely woven and strongly sewed, practically sting proof. Long sleeve with rubber cords to close tight around elbows. Come in large, medium and small sizes. State size wanted.

87 E 5764—Canvas Bee Gloves. Weight, per pair, 8 oz. Price, per pair

Honey Shipping Case

Very smoothly finished and fitted. Has leak-proof corrugated manila paper floor and follower board to keep sections tight together. Width of front glass, 2 inches, of fitting in grooves. Each case takes 24 scalloped sections, size 4 1/4 x 4 1/4 x 1 1/2 inches. Sold only in lots of ten, complete cases. Shipped knocked down.

187 E 5792—Crate of ten Honey Shipping cases. Wt., 40 lbs. Price

Hoffman Self-Spacing Brood Frames

Self-spacing with V-edge and bars and staples. Furnished with the new style triangle shaped nailed wedge. No danger of foundation dropping out in dry weather. Sides of frames pierced for wires. The deep Hoffman frame is the standard used in all brood chambers of our hives.

187 E 5756—Deep Hoffman Brood Frames. Per 100, ship. wt., 40 lbs.

Comb Honey Supers

It takes slotted section holders, slotted wood separators, follower and spring, but is furnished without sections or foundation starters because of the loss due to breakage in transit when the sections and foundations are packed in the crate of super parts.

The eight frame super provides space for 24 4 1/4 x 4 1/4 x 1 1/2 inch section honey boxes and the 10 frame for 28 section boxes. In crates of 5 only, knocked down.

187 E 5700—Set of 5, 8-frame Comb Honey Supers with flat tins, slotted section holders, slotted separators, follower, supers, springs, 10 sections, covers, bottoms or foundation. Ship. wt., 30 lbs. Price, knocked down

187 E 5702—Set of 5, 10-frame Comb Honey Supers with flat tins, slotted section holders, separators, follower, supers, springs, no sections, covers, bottoms or foundations. Ship. wt., 35 lbs. Price for 5, K. D.

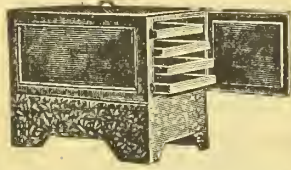
187 E 5704—Set of 5, 10-frame Comb Honey Supers with flat tins, slotted section holders, separators, follower, supers, springs, no sections, covers, bottoms or foundations. Ship. wt., 35 lbs. Price for 5, K. D.

187 E 5706—Set of 5, 10-frame Comb Honey Supers with flat tins, slotted section holders, separators, follower, supers, springs, no sections, covers, bottoms or foundations. Ship. wt., 35 lbs. Price for 5, K. D.

187 E 5708—Set of 5, 10-frame Comb Honey Supers with flat tins, slotted section holders, separators, follower, supers, springs, no sections, covers, bottoms or foundations. Ship. wt., 35 lbs. Price for 5, K. D.

187 E 5710—Set of 5, 10-frame Comb Honey Supers with flat tins, slotted section holders, separators, follower, supers, springs, no sections, covers, bottoms or foundations. Ship. wt., 35 lbs. Price for 5, K. D.

Fruit Dryers and Evaporators



Ormas Hot Air Fruit Dryer

For drying fruit, berries, corn, beans, etc. Light, lasting, clean and fly-proof. Has four trays, size, 9x19 in. Made of galvanized iron, tin and wire cloth. Size, 12x20 inches. Weight, 20 lbs. Capacity 1 to 3 pecks per day.

187 E 2620—Price

Cook's Rocker Furnace



heavy sheet and angle steel. Each furnace is complete with grate and chimney. (No pan.) When ordering pans, select proper size Cook's pans only to match furnace.

287 E 6490—No. 1 195 44x66 \$22.00
287 E 6491—No. 2 210 44x72 24.00
287 E 6492—No. 3 230 44x80 26.00
287 E 6493—No. 4 240 44x108 29.00
287 E 6494—No. 5 260 44x126 31.50
287 E 6495—No. 6 290 44x144 31.50

Shipped from Factory in Western Illinois.

Cook's Pans for Brick, Arch and Rocker Furnaces



For Sorghum, Sugar Cane or other thick juices. Not for Maple Syrup or thin juices.

These pans are strongly made, heavily bound, riveted and soldered, but no seams are exposed to the fire. Depth of pans, inside, 3 in. Every third ledge is 3 in. high, the others 1 1/2 in. High ledges are 6 in. apart. **287 E 6509** has two gates, other pans have one. Made of 16-oz. cold rolled copper or 26 gauge galvanized steel. Furnished with two skimmers. No faucets or pans.

Shipped from Factory in Western Illinois.

Ohio Rocker Furnaces

Complete with grate and chimney (no pan). For use with Ohio Pans only, as quoted above. Made same as Cook's Furnaces, but in sizes for Ohio pans only. When ordering be sure to select furnace to match the pan to be used.

287 E 6498—No. 1 64 inches 165 lbs. \$22.00
287 E 6499—No. 2 80 inches 180 lbs. 23.45
287 E 6500—No. 3 96 inches 195 lbs. 25.90
287 E 6501—No. 4 110 inches 210 lbs. 27.65
287 E 6502—No. 5 126 inches 230 lbs. 29.75

Shipped from Factory in Western Illinois.

Printed directions easily understood with each.

287 E 6504—No. 1 44x66 20 to 30 85 \$8.80
287 E 6505—No. 2 44x72 30 to 40 95 9.60
287 E 6506—No. 3 44x90 40 to 52 115 11.90
287 E 6507—No. 4 44x108 50 to 80 135 14.20
287 E 6508—No. 5 44x126 75 to 120 145 16.50
287 E 6509—No. 6 44x144 100 to 140 180 18.80

Shipped from Factory in Western Illinois.

Ohio Evaporating Pans

Shipped from factory in Western Illinois.

For Maple Syrup or Thin Juices.

For either rocker furnaces or brick arch. Heavily bound, riveted and soldered. The sides and ends are turned up square and lapped. No seams exposed to fire, divisions between sections are 4 in. high and 1 1/2 in. apart. Gate between each section regulates flow of syrup. Operator can draw off one section at a time. Depth of pans, 4 in. Galvanized pans are of 24 gauge steel. Copper pans are of 16 oz. cold rolled copper. Width of all pans, 42 in. Two large skimmers and full directions with each pan.

287 E 6512—No. 1 42x64 75 \$14.35
287 E 6513—No. 2 42x80 90 14.15
287 E 6514—No. 3 42x96 110 16.90
287 E 6515—No. 4 42x110 135 19.70
287 E 6516—No. 5 42x126 150 22.45

Shipped from Factory in Western Illinois.

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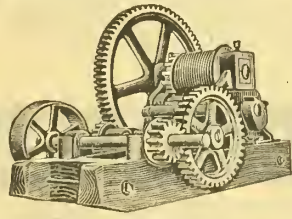
Engine Power Cane Mills

For Sugar Cane or Sorghum

Strongly built and thoroughly well made. A strictly high-grade cane mill in every way. Large rolls are flanged so as to give full width of rolls for pressing. Rolls are also corrugated to insure a positive and regular feed and are adjustable by means of set screws for large and small cane. Steel shafts, machine turned. Shaft boxes are babbitted with hard engine babbit. The frame consists of very heavy castings, held together with heavy bolts extending through from one side to the other, all forming a very strong and rigid structure. Mills are double back geared to adapt it for use with small gasoline engines from two horse power upward.

287 E 6528—No. 1 2 4 8 8 5 1/2 2 1/2 1 1/2 650 19x4 400 \$83.50
287 E 6529—No. 2 2 4 10 10 7 2 1/2 1 1/2 1250 24x6 150 148.00
287 E 6530—No. 3 2 4 16 16 7 2 1/2 1 1/2 1450 24x6 150 170.00

Shipped from Factory in Western Illinois.



Long Roll Engine Power Cane Mills

The gears are keyed to the rolls instead of being cast onto them, the breaking of a cog is easily remedied at small expense by simply replacing a gear wheel. The gears being on the inside of the side plates makes the squeezing surface of the rolls 2 1/2 inches larger and increases the capacity of the mill. Rolls are made of hard tough iron, flanged and lathed turned. Main roll is stationary, small rolls are adjustable. Mills are double back geared, thus adapting them to be run direct from gasoline or steam engines.

287 E 6526—No. 1 4 24x6 150 3 12 1/2 10 7 2 1/2 2 1/2 1350 \$171.50
287 E 6527—No. 2 6 24x6 150 4 18 1/2 10 7 2 1/2 2 1/2 1500 \$191.75

Shipped from Factory in Western Illinois.

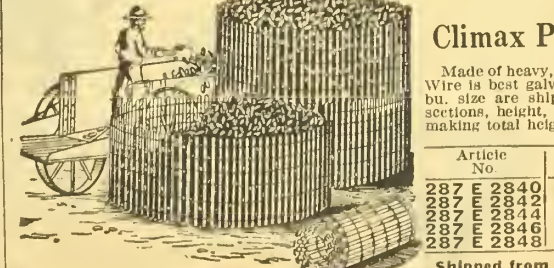
Horse Power Western Cane Mills

For Sugar Cane or Sorghum

Have 3 vertical rolls, steel shafts and brass bearings. The cog gears are cast separate from the rolls, and made very heavy. Top and bottom journals run in brass lined boxes, permitting the mill to work smoothly and easily. Steel shafts with turned bearings; turned rolls with serrated faces, enabling a regular and constant feed to be maintained. The main rolls are flanged at top and bottom. Sweeps not furnished. Not intended for tropical cane.

287 E 6520—No. 1 1 Light 30 to 45 5 1/2 8 1/2 435 \$32.00
287 E 6521—No. 2 1 Reg. 45 to 60 6 1/2 10 6 550 43.00
287 E 6522—No. 3 1 Heavy 60 to 75 6 1/2 11 1/2 635 48.85
287 E 6523—No. 4 2 Light 75 to 90 7 1/2 13 7 800 67.85
287 E 3910—No. 5 2 Medium 90 to 100 8 1/2 12 7 850 79.85
287 E 6524—No. 6 2 Heavy 100 to 120 9 13 1035 79.85

Shipped from Factory in Western Illinois.



Climax Portable Corn Crib

Made of heavy, hardwood slats, set 1 1/2 in. apart. Wire is best galvanized. 6 Cables, 400 and 600 bu. size are shipped in 1 roll, larger size in 2 sections, height, 4 ft., one to set above the other, making total height, 8 ft.

287 E 2840—No. 1 400 12 ft. 280 lbs. \$7.85
287 E 2842—No. 2 600 14 ft. 340 lbs. 9.60
287 E 2844—No. 3 800 17 ft. 420 lbs. 11.25
287 E 2846—No. 4 1000 19 1/2 ft. 480 lbs. 13.85
287 E 2848—No. 5 1500 22 ft. 640 lbs. 15.60

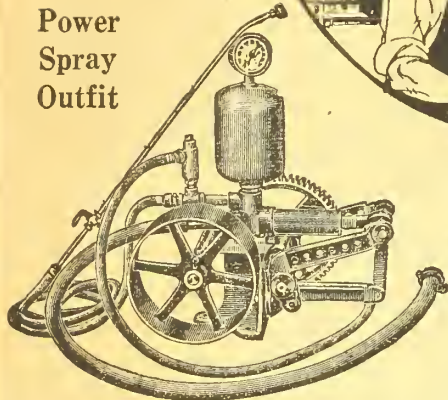
Shipped from Factory in Northern Illinois.

For big corn crops use Sattley manure spreaders.

★ ★ Montgomery Ward & Co. Chicago

Spray for Bigger Better Crops

Power Spray Outfit



large spray nozzles at from 100 to 200 lbs. pressure. This is a great time saver in spraying large orchards, gardens, etc., and in whitewashing a large area of space.

All brass cylinder pump 2 1/4 inches in diameter. Equipment includes 10 feet of 1/2-inch high pressure hose and couplings, 6 feet of suction hose with strainer, 4 feet of relief valve hose and 3 feet of spray pipe with large spray nozzle. Also a sweep agitator of flat iron and fitted with wooden paddle, adjustable for different height barrels or tanks. Shipping weight, about 160 lbs.

187 E 6072—New Climax Sprayer Outfit, complete.\$47.75

Climax Combination Sprayer

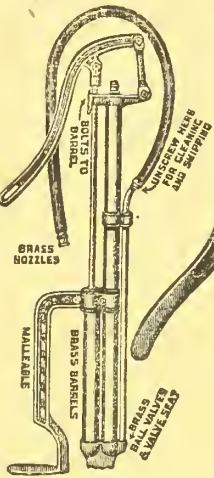
For all Spraying Purposes, fits any Pail, Bucket or Barrel

\$6.60

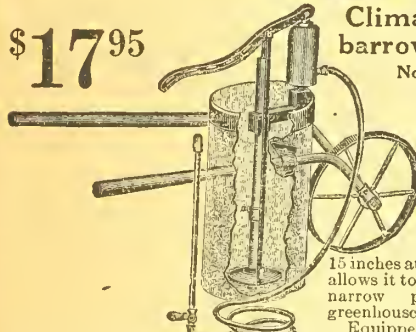
A good combination sprayer and whitewasher built for hard service. Fits any pail or bucket and may be attached to barrel by bolting to the staves through casing provided for this purpose. Adapted to all kinds of garden, field and orchard spraying, whitewashing and spraying disinfectants, etc.

Made almost entirely of brass. Easy to operate. Produces a steady, unbroken flow. Will throw a solid stream 40 feet. May be regulated from the finest to a very coarse spray. Furnished with a malleable iron stirrup for use with bucket. Also connecting plate for use on barrel; has 3 ft. of 1/2-in. hose with brass hose clamps and a combination nozzle for fine mist spraying or stream.

487 E 6004—Shipping weight, 8 lbs. Price.....\$6.60



\$17.95



Climax Wheelbarrow Sprayer

Not Mailable

Especially desirable for orchard, potato or field crop spraying, whitewashing, disinfecting etc. Fine for florists' use. The width of machine being but 15 inches at the widest point allows it to pass through the narrow passageways of greenhouses.

Equipped with a large strong wheel which permits of its being easily moved over rough or soft ground.

Construction—1 1/2-in. brass pump cylinder; bronze ball valves; all working parts of brass; iron air chamber, all securely bolted to a 10-gallon galvanized steel tank. Equipped with dasher agitator. Furnished complete, as illustrated, with 8 feet of 3/8-in. discharge hose, and couplings; 3 feet of 1/2-in. iron extension pipe, and nozzle for fine or coarse spraying.

Shipping weight, crated, 60 lbs.

187 E 6062—Wheelbarrow Sprayer.....\$17.95



Spray Hose

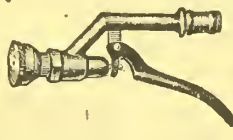
For spraying purposes. Made especially to withstand action of poisonous solutions. Any length desired.

87 E 6104—3/4-in., 3-ply hose. Will stand up to 100 lbs. pressure. Ship. wt., 50 ft., 6 lbs. Price, per foot.....8c

87 E 6105—1/2-in., 5-ply. Will stand up to 130 lbs. pressure. Ship. wt., 50 ft., 9 1/2 lbs. Price, per foot.....13c

87 E 6106—1/2-in., 6-ply. Will stand up to 250 lbs. pressure. Ship. wt., 11 1/2 lbs. Price, per foot.....16c

Funnel Strainer
Strain your spraying mixture before putting into sprayer or barrel. Made of galvanized steel, has brass strainer cloth. Diameter at top, 9 in. Diameter at spout, 2 in. Depth, 7 in. Shipping weight, 1 lb. Price, each.....72c



Climax Lever Nozzle

No Liquids Wasted

Works automatically with hand and fingers. Will not clog, as obstructions are agitated and forced out simply by pressing lever. Made of brass. Made to fit 1/2-in. hose. Shipping wt., 12 oz.

87 E 6040—Climax Lever Nozzle. Price.....\$1.85



Spray Nozzle

87 E 6046



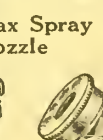
New Bordeaux Nozzle

87 E 6006



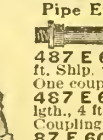
Climax Spray Nozzle

87 E 6063



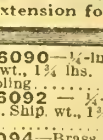
Straight

87 E 6064



Angle

87 E 6063



Fly Spray

87 E 6100

Pipe Extension for High Tree Spraying

87 E 6090

87 E 6092

87 E 6094

87 E 6096

87 E 6098

87 E 6099

87 E 6101

87 E 6102

87 E 6103

87 E 6104

87 E 6105

87 E 6106

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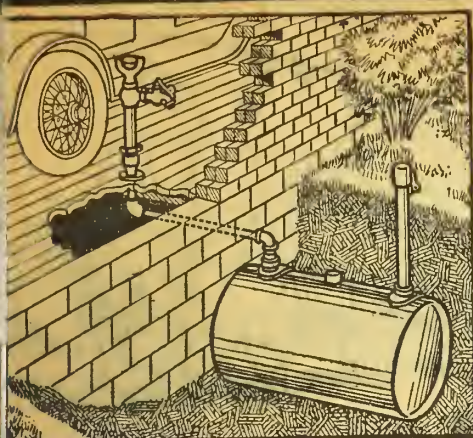
87 E 6287

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87 E 6290

Galvanized and Wooden Tanks



Underground Storage Gasoline Outfit \$37.50

For economy and absolute safety a well-equipped farm or garage cannot be without proper handling facilities for gasoline. We show here a dandy little outfit that can be easily installed. The pump works very easily and will fill an automobile tank quickly. The faucet can be locked, preventing siphoning or theft.

Outfit consists of a heavy galvanized steel welded tank 24 in. 2 inch filler pipe 24 inches long, 10 feet of 3/4 inch galvanized pipe with elbow and street elbow and one piece 1/2 inch pipe 30 inches long. Tank may be installed under or on garage or in ground outside. The suction lift should be greater than 20 feet.

Tank is equipped with 2-inch flanged opening for filler pipe, a 3/4-inch opening for suction pipe and 1-inch opening vent pipe.

You will find the pump simple, powerful and durable, equipped with brass cylinder, piston rod, valve and ground key with hose connection.

Every outfit carries the complete endorsement of the National Association of Fire Underwriters, your guarantee that this is a safe apparatus, fulfilling legal requirements.

| Outfit | Size Tank Gallons | 16 Gauge | 14 Gauge | 12 Gauge | Ship. Wt. 14 Gauge |
|------------|-------------------|----------|----------|----------|--------------------|
| 287 E 6903 | 65 | \$37.50 | \$38.90 | \$43.50 | 165 lbs. |
| 287 E 6904 | 120 | 46.65 | 49.25 | 56.00 | 208 lbs. |
| 287 E 6905 | 165 | 56.50 | 64.50 | 72.00 | 262 lbs. |
| 287 E 6906 | 250 | 65.25 | 80.00 | 91.50 | 318 lbs. |
| 287 E 6907 | 400 | 96.50 | 112.00 | 130.00 | 520 lbs. |

287 E 6908—Gasoline pumps when ordered separately. Shipping weight, 20 lbs. Each..... \$11.00

Shipped from Factory near Chicago.



How the Lock Seams on our Tanks are Made

Rust-Resisting Lock Seams are used in all the small tanks, and in the riveted seams of large tanks special flanged rivets are used, thus making our tanks as near rust-proof as it is possible to make them because liquid can come in contact with the black iron.

Covers and Connections for Tanks

| | |
|--|--------|
| 287 E 6820—1/4 or 1/2 inch pipe connections. | 40c |
| 287 E 6822—For 1/4 or 1/2 inch faucet. State size. | \$1.40 |
| 287 E 6824—For 1-inch faucet, add..... | 2.65 |
| 287 E 6826—Hinged Cover, per square foot..... | .29 |



Gasoline Wagon Tanks

For Transportation on Wagon or for City Delivery

Designed particularly for hauling any kind of oil on a wagon truck. No. 16 gauge galvanized steel. Seams all riveted with 1/4 inch, closely-set rivets. Heads are turned, edges of steel, four-rolled and pressed. Has 2-inch lock nut with plug on top for filling. One-inch faucet at end for drawing off contents, or greater capacity, use two tanks instead of one.

| Article No. | Price | Diam. | Length | Capacity | Weight |
|-------------|---------|--------|--------|----------|----------|
| 287 E 6766 | \$15.30 | 12 in. | 6 ft. | 42 gal. | 50 lbs. |
| 287 E 6767 | 18.50 | 18 in. | 6 ft. | 72 gal. | 75 gal. |
| 287 E 6768 | 24.00 | 24 in. | 6 ft. | 140 gal. | 110 lbs. |
| 287 E 6769 | 32.00 | 30 in. | 6 ft. | 220 gal. | 150 lbs. |
| 287 E 6770 | 38.00 | 30 in. | 8 ft. | 290 gal. | 190 lbs. |

Shipped from Factory in Northern Indiana.



Wood Storage Cistern

Always shipped knocked down. Made of carefully selected Cypress. All made with straight staves. Steel hoops. Hoops fitted with adjustable tank lugs. Write for prices on flat or conical wood covers. Shipping weights range from 400 to 1300 lbs.

| Article Number | Price 1 1/2 inch Cypress | Price 2 inch Cypress | Length of Stave | Diam. of Bottom | No. Hoops | Cap. Bbls. |
|----------------|--------------------------|----------------------|-----------------|-----------------|-----------|------------|
| 287 E 6798 | \$35.80 | \$44.00 | 4 feet | 6 feet | 3 | 22 |
| 287 E 6800 | 38.00 | 50.65 | 5 feet | 6 feet | 4 | 29 |
| 287 E 6802 | 45.85 | 61.25 | 6 feet | 6 feet | 5 | 35 |
| 287 E 6804 | 63.25 | 84.50 | 6 feet | 8 feet | 5 | 51 |
| 287 E 6806 | 67.50 | 76.50 | 8 feet | 6 feet | 6 | 47 |
| 287 E 6808 | 84.60 | 113.00 | 8 feet | 8 feet | 6 | 86 |
| 287 E 6810 | 112.00 | 136.00 | 8 feet | 10 feet | 6 | 136 |

Shipped from Factory in Wisconsin.



Wood Stock Tanks

Round tanks for stock watering purposes. Made of carefully selected cypress lumber. We recommend cypress, as it is noted for its great durability. Each tank furnished with two steel hoops with patent draw lugs. Always shipped knocked down. Easily set up.

| Article Number | Price 1 1/2 inch Cypress | Price 2 inch Cypress | Length of Stave | Diam. | Cap. Bbls. | Average Ship. Wt. lbs. |
|----------------|--------------------------|----------------------|-----------------|---------|------------|------------------------|
| 287 E 6780 | \$15.45 | \$20.65 | 2 feet | 5 feet | 7 | 250 |
| 287 E 6782 | 17.60 | 23.80 | 2 1/2 feet | 5 feet | 9 | 280 |
| 287 E 6784 | 19.80 | 26.10 | 2 1/2 feet | 6 feet | 10 | 310 |
| 287 E 6786 | 21.90 | 29.25 | 2 1/2 feet | 6 feet | 13 | 340 |
| 287 E 6788 | 24.20 | 32.25 | 2 1/2 feet | 7 feet | 15 | 380 |
| 287 E 6790 | 26.50 | 35.40 | 2 1/2 feet | 7 feet | 20 | 410 |
| 287 E 6792 | 28.95 | 38.50 | 2 1/2 feet | 8 feet | 24 | 440 |
| 287 E 6794 | 31.35 | 41.50 | 2 1/2 feet | 8 feet | 24 | 475 |
| 287 E 6796 | 40.65 | 54.25 | 2 1/2 feet | 10 feet | 30 | 620 |

Shipped from Factory in Wisconsin.

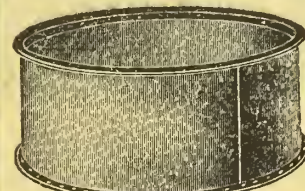


House Tanks Round Steel With Tight Covers

For general use around the house or farm for holding water, mixing stock food or as swill and garbage can and for many purposes that a water proof tank is needed. The sides and bottoms are double seamed together, all seams locked and securely soldered. Made of No. 20 Standard Gauge, galvanized steel. Covers, with center handle, included with each tank. Always shipped set up.

| Art. No. | Price | Capacity | Wt. |
|------------|--------|-----------|---------|
| 287 E 6742 | \$3.70 | 27 gals. | 20 lbs. |
| 287 E 6743 | 3.90 | 32 gals. | 22 lbs. |
| 287 E 6744 | 4.15 | 47 gals. | 26 lbs. |
| 287 E 6745 | 5.10 | 73 gals. | 34 lbs. |
| 287 E 6746 | 5.80 | 92 gals. | 40 lbs. |
| 287 E 6747 | 6.50 | 110 gals. | 50 lbs. |
| 287 E 6748 | 8.60 | 158 gals. | 60 lbs. |
| 287 E 6749 | 11.30 | 211 gals. | 80 lbs. |

Shipped from Factory in Northern Indiana.



Round Steel Stock Tanks

For Use in Stock Watering or Storage Tank

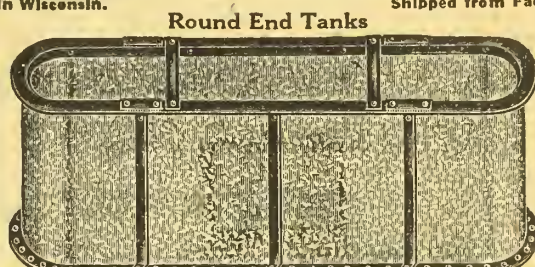
Always shipped set up if not ordered knocked down. Made regularly of No. 20 U. S. Standard Gauge Galvanized Steel; lock seams thoroughly riveted and soldered. Used for ordinary stock watering this weight steel is sufficiently heavy in any size.

| Art. No. | Price | Diam. | Height | Capacity | Ship. Wt. |
|------------|---------|-------|-----------|-------------|-----------|
| 287 E 6664 | \$ 6.20 | 3 ft. | 2 ft. | 3 1/2 bbls. | 59 lbs. |
| 287 E 6666 | 7.95 | 4 ft. | 2 ft. | 6 bbls. | 89 lbs. |
| 287 E 6668 | 9.40 | 4 ft. | 2 1/2 ft. | 7 bbls. | 96 lbs. |
| 287 E 6670 | 12.50 | 5 ft. | 2 ft. | 12 bbls. | 127 lbs. |
| 287 E 6672 | 11.10 | 5 ft. | 2 ft. | 9 1/2 bbls. | 115 lbs. |
| 287 E 6674 | 11.60 | 5 ft. | 2 1/2 ft. | 12 bbls. | 129 lbs. |
| 287 E 6676 | 15.85 | 5 ft. | 4 ft. | 19 bbls. | 160 lbs. |
| 287 E 6678 | 12.85 | 6 ft. | 2 ft. | 14 bbls. | 135 lbs. |
| 287 E 6680 | 14.30 | 6 ft. | 2 1/2 ft. | 17 bbls. | 150 lbs. |
| 287 E 6682 | 16.75 | 6 ft. | 3 ft. | 20 bbls. | 176 lbs. |
| 287 E 6684 | 25.90 | 6 ft. | 4 ft. | 27 bbls. | 220 lbs. |
| 287 E 6686 | 25.80 | 6 ft. | 5 ft. | 34 bbls. | 260 lbs. |

For 18-gauge steel add 30% to above prices.

For 16-gauge steel add 60% to above prices.

Shipped from Factory in Northern Indiana.



Round End Tanks

Shipped set up if not ordered knocked down. Made of No. 20 U. S. Standard gauge steel. Sides and bottom are lock seamed and soldered, making the strongest construction possible. Number of top and side braces depends on size of tank.

| Art. No. | Price | Width | Height | Length | Capacity | Weight |
|------------|--------|------------|------------|---------|-------------|----------|
| 287 E 6630 | \$6.35 | 2 feet | 2 feet | 4 feet | 3 bbl. | 65 lbs. |
| 287 E 6632 | 8.80 | 2 feet | 2 feet | 6 feet | 4 1/2 bbl. | 90 lbs. |
| 287 E 6634 | 11.25 | 2 feet | 2 feet | 8 feet | 6 bbl. | 120 lbs. |
| 287 E 6636 | 12.75 | 2 1/2 feet | 2 1/2 feet | 8 feet | 8 bbl. | 147 lbs. |
| 287 E 6638 | 13.85 | 2 1/2 feet | 2 1/2 feet | 8 feet | 8 bbl. | 147 lbs. |
| 287 E 6640 | 16.30 | 3 feet | 2 feet | 8 feet | 9 1/2 bbl. | 150 lbs. |
| 287 E 6642 | 16.35 | 3 feet | 2 feet | 8 feet | 12 1/2 bbl. | 155 lbs. |
| 287 E 6644 | 18.35 | 3 feet | 2 1/2 feet | 8 feet | 15 1/2 bbl. | 174 lbs. |
| 287 E 6646 | 18.95 | 3 feet | 2 feet | 10 feet | 12 1/2 bbl. | 165 lbs. |
| 287 E 6648 | 23.95 | 3 feet | 2 1/2 feet | 10 feet | 15 1/2 bbl. | 190 lbs. |
| 287 E 6650 | 19.50 | 4 feet | 2 feet | 10 feet | 16 1/2 bbl. | 205 lbs. |
| 287 E 6654 | 30.30 | 4 feet | 2 feet | 16 feet | 27 1/2 bbl. | 320 lbs. |



Steel Wagon Tanks

Made of No. 20 U. S. Standard Gauge Galvanized Steel.

Must be set on plank from bolster to bolster. The cover is made water-tight and provided with manhole, diameter 14 inches and a raised flange, which prevents the water from splashing over the tank. A bulk head or splash board, inside. Six-foot tanks furnished with one side brace; 8-foot, two braces; and 10-foot, three side braces on each side. One-inch exhaust hole, fitted with lock nuts and nipple for attaching hose or pipe at rear.

| Art. No. | Price | Width | Height | Length | Capacity | Weight |
|------------|---------|-----------|--------|--------|----------|----------|
| 287 E 6694 | \$10.90 | 2 ft. | 2 ft. | 4 ft. | 3 1/2 | 85 lbs. |
| 287 E 6696 | 14.80 | 2 ft. | 2 ft. | 6 ft. | 5 1/2 | 120 lbs. |
| 287 E 6698 | 16.80 | 2 ft. | 2 ft. | 8 ft. | 7 1/2 | 155 lbs. |
| 287 E 6699 | 19.10 | 2 1/2 ft. | 2 ft. | 8 ft. | 9 1/2 | 168 lbs. |
| 287 E 6698 | 20.95 | 2 ft. | 2 ft. | 8 ft. | 12 | 190 lbs. |
| 287 E 6699 | 24.60 | 3 ft. | 2 ft. | 10 ft. | 14 | 236 lbs. |

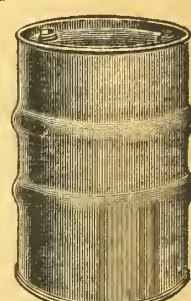
Shipped from Factory in Northern Indiana.

A practical storage tank of heavy, galvanized iron, reinforced with wood haws under the metal bottom. A 4-inch screw filler cap and ground key brass lock faucet make it an ideal addition to your garage or farm equipment. Painted with heavy varnish paint, and brushed, not dipped.

| Article No. | Capacity | Weight | Price |
|-------------|-------------|-----------|--------|
| 287 E 6910 | 30 gallons | 42 pounds | \$5.45 |
| 287 E 6885 | 60 gallons | 52 pounds | 6.95 |
| 287 E 6886 | 110 gallons | 97 pounds | 10.65 |

287 E 6884—Barrel pump. Steel tubing brass valves. Fits 1 1/2 or 2-inch bung. Ship wt., 19 lbs. Price..... \$4.95

Shipped from Factory near Chicago.



Steel Shipping Barrel

Steel Barrel especially designed for shipping inflammable liquids. Complies with I. C. C. Specifications. The seam at the chime is 5-ply and furnished with heavy chime hoop. Made of open hearth steel with open hoops swedged out of body, which adds greatly to its strength. Capacity, 55 gallon. 16-gauge steel. Wt., abt. 76 lbs.

287 E 6912—Barrel, black steel. \$8.50

287 E 6913—Barrel, galv. steel. 9.65

Shipped from Factory near Chicago



Gasoline Storage Tank With Faucet

Square, Wagon and Barrel Tanks

Climax Steel Barrel

Made of Black and Galvanized steel.

A strongly made steel barrel that will withstand the roughest usage. The seams are welded, rolled chimes, and no solder is used in their construction. Danger of leaking is eliminated. Stands an interior air pressure of 10 lbs. to square inch. Draw-off faucet with each barrel.

Ideal for storing oil thus having a large quantity always ready for use. Also for transporting oil by wagon or truck. The shipping barrel has 1/2-inch thick rolling ring reinforcements, making it best for railroad shipping.

| Article Number | Style Barrel | Gau. ge | Cap. Gal. | Wt. lbs. | Price Blk. Steel | Article Number | Price Gal. Steel |
|----------------|--------------|---------|-----------|----------|------------------|----------------|------------------|
| 187 E 6876 | Stor. | 18 | 55 | 56 | \$5.30 | 187 E 6878 | \$6.20 |
| 187 E 6877 | Ship. | 16 | 55 | 62 | 6.10 | 187 E 6879 | 6.65 |
| 187 E 6882 | Stor. | 20 | 15 | 14 | 3.20 | | |
| 187 E 6883 | Ship. | 20 | 30 | 29 | 3.80 | | |



Threshermen's Wagon Tanks Made of 20-Gauge Galvanized Steel

For transportation of water, oil and other liquids there is no better tank made at anywhere near our price.

It is carried on wooden frame with cross sills notched to fit bolster. Iron braces extend up

sides from cross sills. Has galvanized flange extending up 6 inches high around top of tank, making it possible to carry buckets, tools, etc., without danger of falling off. Is fitted with covered manhole near center. Front of tank and frame are so constructed as to form driver's seat with foot rest. When ordering be sure to give width of bolster between standards.

| Art. No. | Price | Depth | Width | Length | Weight | Capacity |
|------------|---------|--------|-------|--------|----------|------------|
| 287 E 6700 | \$32.30 | 2 ft. | 3 ft. | 5 ft. | 310 lbs. | 8 1/2 bbl. |
| 287 E 6701 | 37.70 | 2 ft. | 3 ft. | 10 ft. | 370 lbs. | 12 bbl. |
| 287 E 6702 | 40.75 | 28 in. | 3 ft. | 10 ft. | 410 lbs. | 15 bbl. |

For 18-gauge steel, add to above prices, 30 per cent.

For 16-gauge steel, add to above prices, 40 per cent.

Shipped from Factory in Northern Indiana.

Square End Steel Tanks

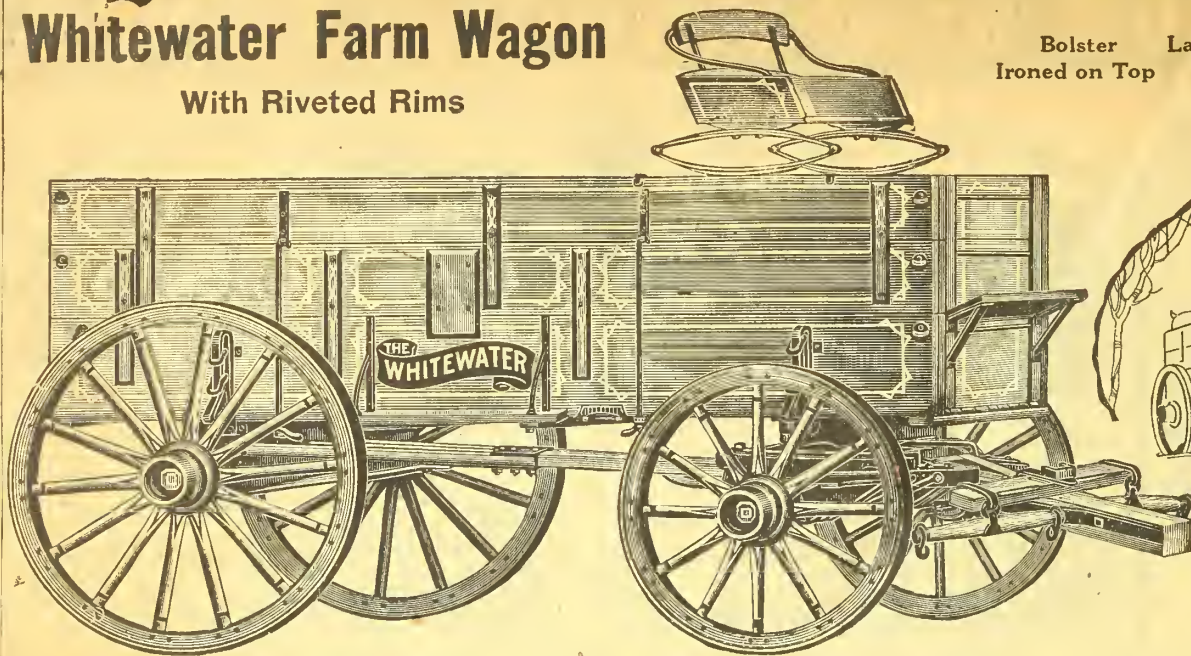
Always shipped set up if not ordered knocked down. Made of No. 20 U. S. Standard Gauge Steel. All tanks 6 feet long furnished with one angle brace across top and one brace each side, 8 ft. in length furnished with one angle brace across the top and two angle braces on each side, on 10-ft. tank two angle braces across the top and three on each side.

| Article No. | Price | Width | Height | Length | Cap. Bbls. | Wt. |
|-------------|---------|-------|-----------|--------|------------|-----|
| 287 E 6712 | \$ 6.95 | 2 ft. | 2 ft. | 4 ft. | 3 1/2 | 78 |
| 287 E 6714 | 13.15 | 2 ft. | 2 ft. | 6 ft. | 5 1/2 | 108 |
| 287 E 6716 | 13.45 | 2 ft. | 2 ft. | 8 ft. | 7 1/2 | 140 |
| 287 E 6718 | 15.70 | 2 ft. | 2 1/2 ft. | 8 ft. | 9 1/2 | 146 |
| 287 E 6720 | 17.30 | 3 ft. | 2 ft. | 8 ft. | 12 | 167 |
| 287 E 6722 | 17.80 | 3 ft. | 2 ft. | 8 ft. | 11 1/2 | 154 |
| 287 E 6724 | 17.30 | 4 ft. | 2 ft. | 8 ft. | 15 | 183 |
| 287 E 6726 | 18.00 | 3 ft. | 2 ft. | 10 ft. | 14 | 195 |
| 287 E 6728 | 20.80 | 4 ft. | 2 ft. | 10 ft. | 19 | 226 |

Shipped from Factory in Northern Indiana.

Whitewater Farm Wagon

With Riveted Rims



Bolster Ironed on Top Large Stake Rings Stay Chain Hooks Clipped Gear

\$115²⁵ and \$122⁷⁵

Capacity 5000 Pounds

HERE is a wagon that will please any farmer who takes pride in owning high grade distinctive farm equipment. It is a wagon built for hard service and with ordinary care should last almost a lifetime.

Whitewater Wagons are built of the very best wagon materials, braced, bolted and riveted. Running Gear is equipped with high grade wheels which have riveted rims, Number 1 hubs, oak spokes.

The box is substantially and carefully made. Complete with Tip Top Box, seat, doubletree, neckyoke, grain cleats, anti-spreader chains and riveted rims. Nothing has been skimped or slighted in its make up. A trial will convince you beyond question that it is one of the best values offered in a farm wagon.

Specifications

Capacity—5000 pounds.

Gear—Round angle steel front hound, drop tongue. Axles, Sandboards, Bolsters, Reach, Tongue and other wood parts, selected hardwood.

Skins—3½x10 inches, cast, standard pattern.

Wheels—Height, 40 and 48 inches. Tires, 3x¾ inches. Number 1 hubs, oak spokes and oak rims. These wheels have riveted rims.

Painting—Bed, green and ornamented. Gear and wheels, orange striped.

Box—Length, 10½ feet; height, 36 inches, with Comstock patent end gate. Hard pine floor with gumwood sides and ends, box fasteners, and anti-spreader chain.

Track—Narrow, 4 feet, 8 inches, center to center of tire.

287 E 7655—Wagon complete with Tip Top box as illustrated, with doubletree, neckyoke, singletrees, spring seat. Tires, 3x¾ inches. Shipping weight, about 1100 pounds. \$122.75

287 E 7656—Wagon complete same as above except box is 26 inches high (no Tip Top) weight about 1025 pounds. \$115.25

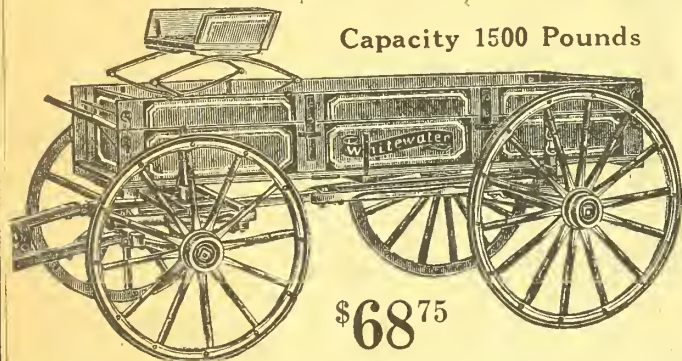
Extra for Gear Brake..... 8.40
Wide track, 5 feet, extra..... 3.50

If so ordered will ship above wagon with tires 2x¾ inches.

Shipped from Warehouse in Southern Indiana or Southern Minnesota whichever is nearest you

Whitewater One-Horse Wagon

Capacity 1500 Pounds



\$68⁷⁵

THIS is the standard pattern one-horse wagon popular the country over, for light hauling. Saves time and labor, as well as your horses. Capacity, 1500 pounds. Made in the same careful manner as our large farm wagon shown above. The best of material is used in its construction and great care is given to make it light, easy running and strong and substantial.

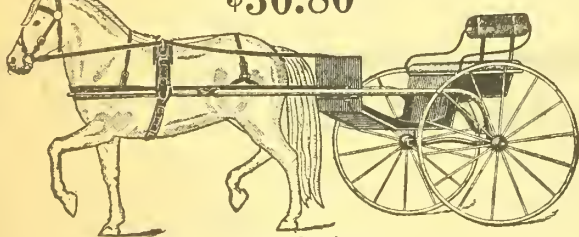
287 E 7688—Cast Skeins, 2¼x7 inches. Shafts, axles, spokes, hubs, rims, bolsters and gear woods made of highly seasoned hardwood. Tires, 1½x¾ inches. Front wheels, 42 inches high. Rear wheels, 48 inches high. Box, 8½ feet x 14 inches, seasoned wood with hardwood cross and end cleats, bevel edge irons on top of sides and ends. Complete wagon is painted with two coats of high grade paint and is neatly striped and varnished. Spring seat is included as illustrated. Track, 4 feet, 8 inches or 5 feet, 2 inches. State which is wanted. Shipping weight, about 550 pounds. \$68.75

Complete..... 8.20
Extra for Gear Brake..... 4.60
Extra for Pole in place of Shafts..... 6.85
Extra for Pole and Shafts..... 2.80
Extra for 1½-inch Steel Axles and Sarven Patent Wheels.....

Shipped from Factory in Southern Indiana.

Square Deal Phaeton Pony Cart

\$30.80



Specifications

Gear—Axles, ¾-inch double collar arched.

Springs—Oil tempered.

Wheels—Hickory ¾-inch screwed rim. Oval edge steel tire bolted between each spoke.

Shafts—Hickory, different lengths to correspond with size of vehicle, well ironed painted points; leather straps.

Painting—Body and seat, black; gears, dark auto red, neatly striped.

Track—45 inches.

Seat—Width 30 inches; upholstered in artificial leather. Shipping weight, about 100 pounds.

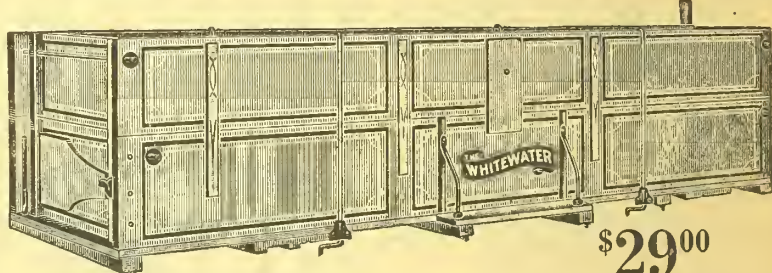
287 E 7200—For Pony, height, 34 inches to 42 inches at front legs. Wheels, height, 30 inches. Shafts, length, 50 inches. \$30.80

287 E 7201—For Pony, height, 42 to 48 inches at front legs. Wheels, height, 34 inches. Shafts, length 60 inches. \$30.85

287 E 7202—For small horse, height over 48 inches at front legs. Wheels, height, 34 inches. Shafts, length, 66 inches. \$30.90

Shipped from Factory in Southern Ohio.

Whitewater Farm Wagon Box



\$29⁰⁰

A good substantial Farm Wagon Box. Yellow pine bottom, and gum or cottonwood sides. Comstock patent end gate, side box fasteners, grain cleats and anti-spreader chain.

Hardwood cross and end cleats; double bottom over rear bolster, bevel edge irons on top of sides and ends; box straps, ½ inch, side braces, reinforced side blocks, ½ inch, 4 hold down rods, 2 on each side, end rods ½ inch; painted green and striped.

Cleats nailed and riveted at each end.

287 E 7675—Wagon Box; length, 10½ feet, height, 26 inches, for bolsters, 38 inches between stakes. Shipping weight, about 300 pounds. \$29.00

Price, Complete as illustrated.....

287 E 7679—Wagon Box. Same as above except 42 inches wide. \$29.70

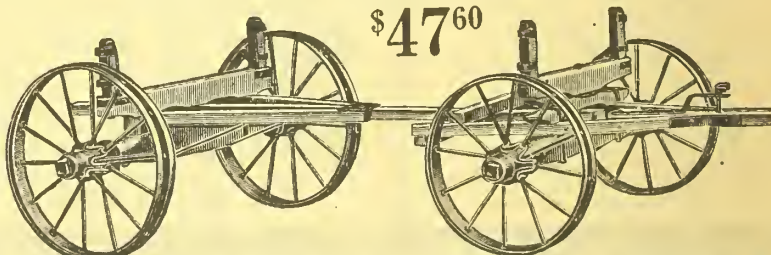
For 10 inches. Tip Top section..... 7.50

Spring Seat with high back add..... 7.30

Shipped from Warehouse in Southern Indiana or Southern Minnesota.

Whitewater Steel Wheel Truck

\$47⁶⁰



Two-Ton Capacity

The illustration shows our new Steel Wheel Farm Truck with square hound in front and sandboards. Skeins, 3¼x10 inches. Capacity, 4,000 pounds. This wagon is made of good solid hardwood well ironed and braced and is built to stand up under lots of hard work.

Hound—Square with drop tongue.

Bolsters—Sandboards, reaches and other gear parts Seasoned Hardwood.

Bolster Stakes—Well ironed.

Wheels—Front, 28 inches high; rear, 32 inches.

Tires—Grooved, ¾ inch thick, 4 inches wide.

Track—Narrow, 4 feet 8 inches. Shipping weight, about 650 pounds.

287 E 7625—28-inch front, 32-inch rear wheels. \$47.60

Extra for neckyoke, doubletree and singletrees..... 4.90

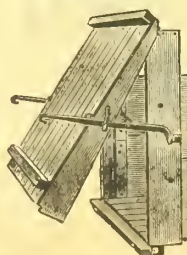
Extra for wide Track, 5 feet..... 2.50

Extra for Gear Brake..... 6.30

Shipped from Warehouse in Southern Minnesota.

Whitewater Shoveling Boards

\$4⁷⁵



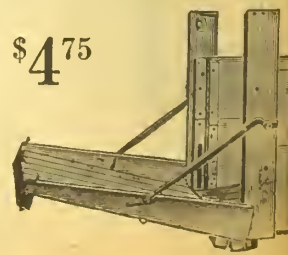
Made to fit wagon boxes 38 inches and 42 inches wide. Bolts to the outside of the wagon box and therefore does not interfere with unloading in anyway. Is grain tight when closed. Can be opened at the bottom for dumping the corn out of the wagon or can be opened from the top for shoveling out the corn.

Shipping weight, about 50 pounds.

287 E 7671—Whitewater Shoveling Board to fit 38-inch box..... \$4.75

287 E 7672—Whitewater Shoveling Board to fit 42-inch box..... \$5.50

Shipped from Warehouse in Southern Minnesota.

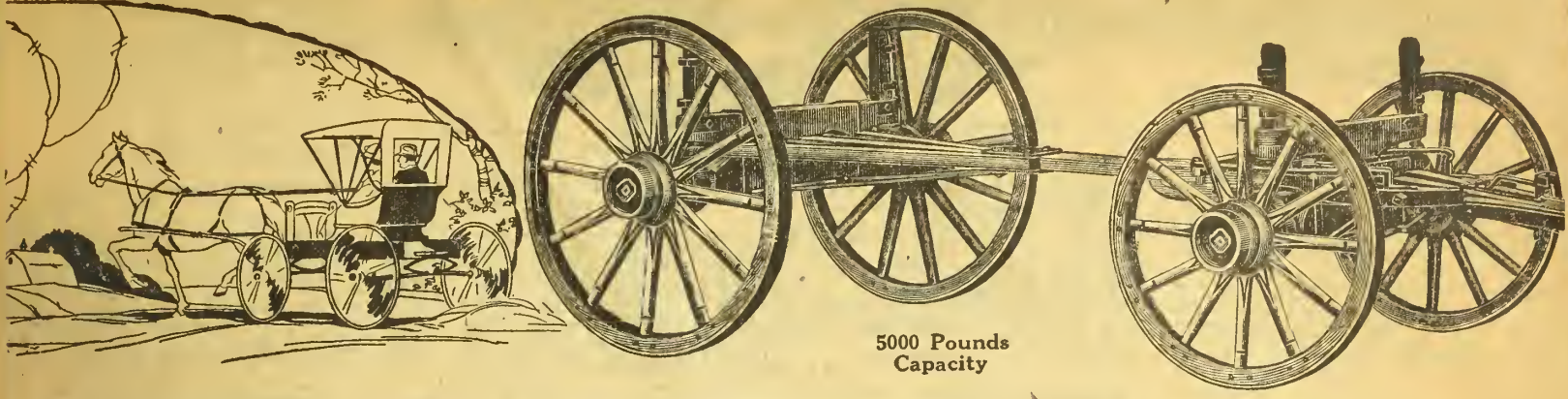


\$73⁵⁰

Whitewater Wood Wheel Farm Truck with Riveted Rims

\$76⁵⁰

Trussed Axles — Clipped Gear — Bolsters Fully Ironed



THIS is the same high grade truck that is used on our famous Whitewater wagon shown on opposite page.

Whitewater Trucks are made of the very best materials and are fully ironed and braced. Wheels have riveted rims. Whitewater Trucks have given splendid satisfaction to many of our customers and we recommend them for strength and long service.

Specifications

Gear—Round angle steel front hound, drop tongue. Axles, bolsters, sandboards and other wood parts selected hardwood. Ironed bolsters with rings in stakes.

Wheels—Height, 36 and 40 inches. Tires, 3x³/₈ inches. Hubs, spokes and rims hardwood. Riveted rims.

Skins—3¹/₄x10 inches, cast standard pattern.

Painting—Orange, with black stripes, varnished.

Track—Narrow, 4 feet 8 inches from center to center of tires.

Capacity—5,000 pounds. Shipping weight, 650 pounds.

287 E 7640—As described above. **\$73.50**

Price.....

287 E 7642—Whitewater wagon gear with 40-inch front wheels and 48-inch rear wheels. **\$76.50**

Price.....

Extra for wide 5-foot track..... **3.00**

Extra for doubletree, singletrees and neckyoke..... **4.90**

Extra for gear brake..... **6.30**

Shipped from Warehouse in Indiana or Southern Minnesota.

Our Leader Buggy

\$86⁵⁰

THIS popular vehicle sold by us exclusively. Made of the very best materials throughout, beautifully upholstered. Painted and varnished to a piano finish. Easy riding.

Gear—⁵/₈-inch arch axles, cap cemented and clipped to axle with extra clips, selected hickory reaches ironed full length.

Body—Piano body style. Width, 24 inches, length 56 inches.

Hardwood sills and frame. Seat, 32 inches wide.

Wheels—Sarven patent. Selected hickory. ⁷/₈-inch screwed rims. Steel tires bolted between spokes. Height, front, 39 inches; rear, 43 inches.

287 E 7025—Price..... **\$86.50**

287 E 7029—Leader Buggy, wide track, 5 feet 2 inches. Built on special orders only. Upholstered in leatherwove. Will trim in green cloth if so ordered. **\$103.75**

Price.....

Shipped from Indiana Factory.

Upholstering—Leatherwove. Full spring back and cushion. Padded seat ends.

Top—Four-Bow, auto skeleton style. Covered with fine auto-top material.

Painting—Body and seat, black; gear, Brewster green; highest finish, neatly striped.

Shafts—Selected hickory. Triple-braced with leather straps and points. Bradley couplings.

Sundries—Large fancy dash. Large storm apron. Side curtains and washers. Full rubber mat.

Track—4 feet, 8 inches. Shipping weight, about 550 pounds. Crated under 30 inches.

Shipped from Missouri Warehouse

Square Deal Wide Seat Buggies

Square Deal Buggy Wide Seat Wide Body

287 E 7030—Buggy. Same Style as 287 E-7025 but with body 26 inches wide and seat 34³/₈ inches wide. Wheels, 1 inch. Narrow track, 4 feet 8 inches. Weight, 600 pounds. Crated.

Shipped from Missouri Warehouse

Price..... **\$105.25**

287 E 7033—Buggy. Same as 287 E 7030 but wide track 5 feet 2 inches. Built on special orders only.

Shipped from Indiana Factory

Price..... **\$108.25**

Square Deal Heavy Concord Buggy

287 E 7035—Concord buggy same grade as 287 E 7030. Body, 28 inches wide, 58 inches long. Seat, 35 inches wide. Wheels, 1 inch. Axle, 1¹/₂ inches. Concord springs with equalizers. Weight crated about 610 pounds. Narrow track, 4 feet 8 inches.

Shipped from Indiana Factory

Price..... **\$110.50**

287 E 7036—Concord buggy same as 287 E-7035 but wide track 5 feet 2 inches. Built on special order only.

Shipped from Indiana Factory

Price..... **\$113.50**

Square Deal Skeleton Road Cart

\$29⁴⁰

Made especially for driving over heavy roads in emergencies. A useful cart that will travel through soft soil in rainy weather when heavier vehicles could not be used.

Specifications

Gear—Axles, 1-inch, springs, steel; stirrup ends.

Wheels—Sarven ³/₄ in.; height, 45 in.; ¹/₄-in. thro.

Seat—Width, 31 in., slat bottom and steel rail.

Shaft—Hickory.

Painting—Wheels and shafts red; other parts black.

Sundries—Slat foot-rack. Step-on axle. Wrench. Washers and Whip-socket. Track—4 ft. 8 in. or 5 ft. 2 in. State which.

287 E 7060—Cart complete, as described above..... **\$29.40**

For 1¹/₄ in. axle and wheels. Extra..... **6.00**

For 1³/₈ in. axle and wheels. Extra..... **7.50**

Shipping weight, packed, about 125 pounds. Shipped from Factory in Southern Indiana.

Dura-Built Metal Wheels for Farm Wagons—Trucks

Low Down—Easy to Load—Fit any Axle

Outlast Several Sets of Wood Wheels

Tires, ³/₈-in. thick, carry 5,000 lbs. per set. Prices are for one wheel. Grooved tires are stronger, and are shipped unless plain are ordered.

| Article No. | Hht. In. | Wt. Per Wheel, lbs. | Tire 3x ³ / ₈ | Tire 4x ³ / ₈ | Tire 5x ³ / ₈ |
|-------------|----------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 287 E 9100 | 24 | 58 to 81 | \$4.05 | \$4.60 | \$5.20 |
| 287 E 9101 | 26 | 61 to 86 | 4.25 | 4.85 | 5.40 |
| 287 E 9102 | 28 | 67 to 94 | 4.50 | 5.10 | 5.75 |
| 287 E 9103 | 30 | 70 to 100 | 4.70 | 5.40 | 6.10 |
| 287 E 9104 | 32 | 73 to 104 | 5.10 | 5.90 | 6.65 |
| 287 E 9105 | 34 | 82 to 115 | 5.30 | 6.25 | 7.00 |
| 287 E 9106 | 36 | 84 to 119 | 5.80 | 6.65 | 7.50 |
| 287 E 9107 | 38 | 88 to 135 | 6.00 | 6.95 | 7.85 |
| 287 E 9108 | 40 | 101 to 146 | 6.60 | 7.50 | 8.40 |

Tires, ¹/₂-in. thick, carry 8,000 lb. per set. Plain tires, not grooved, furnished without charge when ordered. Prices are for one wheel.

| Article No. | Height | Wt. Per Wheel lbs. | Tire 3x ³ / ₈ | Tire 4 x ³ / ₈ | Tire 5x ³ / ₈ |
|-------------|--------|--------------------|-------------------------------------|--------------------------------------|-------------------------------------|
| 287 E 9125 | 24 in. | 66 to 97 | \$4.60 | \$5.40 | \$6.15 |
| 287 E 9126 | 26 in. | 69 to 103 | 4.85 | 5.65 | 6.50 |
| 287 E 9127 | 28 in. | 76 to 112 | 5.10 | 6.00 | 6.95 |
| 287 E 9128 | 30 in. | 80 to 120 | 5.40 | 6.35 | 7.30 |
| 287 E 9129 | 32 in. | 83 to 125 | 5.90 | 6.95 | 8.00 |
| 287 E 9130 | 34 in. | 93 to 137 | 6.15 | 7.30 | 8.40 |
| 287 E 9131 | 36 in. | 95 to 142 | 6.65 | 7.85 | 9.05 |
| 287 E 9132 | 38 in. | 100 to 160 | 6.95 | 8.20 | 9.45 |
| 287 E 9133 | 40 in. | 114 to 172 | 7.50 | 8.80 | 10.15 |
| 287 E 9134 | 42 in. | 120 to 180 | 7.75 | 9.15 | 10.55 |
| 287 E 9134 | 44 in. | 129 to 187 | 8.40 | 9.85 | 11.35 |

Shipped from Illinois Factory.

Shipments

Metal wheels are made to order only and shipped direct from factory in Central Illinois. Shipments usually made in 7 to 12 days after receipt of order.

How to Order and Measure Steel Wheels.

The number and size of spokes, also hub pattern, vary according to size of skein or axle and capacity of wheels. Send all measurements indicated. Measure from skeins only, not from your old wheels. Factory will allow for play. Do not send circumference measurements. Give height of both front and rear wheels, width and thickness of tires. If you have no calipers, cut a slot in cardboard as shown in illustration to fit over part to be measured, then measure across slot as shown. Measure from side to side of spindle, not from top to bottom. Measure both front and rear axles.

If you send us correct measurements we guarantee wheels to fit perfectly.

MEASURE BETWEEN

Diameter of Collar on Nut

Smallest Diameter of Spindle

Center Diameter of Spindle

Largest Diameter of Spindle

Diameter of Collar

Length of Spindle

Phaeton Body Road Cart

\$21⁷⁵

Made of high grade material and built to stand up under the hardest road conditions. Neatly painted in red and black.

Gear—Axles, 1-in. arched. Springs, steel; stirrup ends.

Wheels—Sarven, ³/₄-in. screwed; height, 46 in., ¹/₄-inch Tire bolted between spokes.

Seat—30 in. between rails. Upholstered artificial leather and hinged to tip forward and give room for parcels in box underneath.

Shafts—Hickory, circle bar and cross bar, black points and leather straps.

Painting—Wheels and shafts, red. Body, seat and dash, black. All other parts red.

Sundries—Wood Dash. Step-on axle. Wrench, Washers and Socket. Track—4 ft. 8 in.

Shipping weight, packed, about 165 pounds.

287 E 7070—Cart complete as described. **\$21.75**

Shipped from Kansas City, Mo.

Buggy harness for style and wear on page 839

***Montgomery Ward & Co Chicago

883

Waterproof Cloth

CHASE
Leatherwove

CHASE
Leatherwove
SPANISH EFFECTS

CHASE
WEXFORD-MOTOR CLOTHS

Black Face Rubber Drill Leather Grain-Waterproof For Tops, Cushions, Curtains etc.

| | Wt. | Back | Width | Per yd. |
|-----------|-----------|-------|-----------|---------|
| 87 E 7860 | 20 ounces | White | 50 inches | 75c |
| 87 E 7861 | 28 ounces | White | 50 inches | 85c |
| 87 E 7862 | 24 ounces | Black | 50 inches | 86c |
| 87 E 7863 | 28 ounces | Black | 50 inches | 92c |

Rubber treated material with great weather resisting properties and suitable for highest class work. The drill back is combined with outer fabric by a waterproof coating of rubber, other surface is then finished in long grain leather effect. Width, 54 in. Ship. wt., per lineal yd. 36 oz.

87 E 7830—Color, Drab back. Per yd. \$1.50
87 E 7831—Color, Black back. Per yd. 1.52

Artificial Leather in Colors Guaranteed not to peel or crack

| | |
|--|--------|
| 87 E 7835—Good quality. Black face Upholstering substitute for leather. 50 inches wide. Weight, per yard 12 oz. Per yard | \$1.05 |
| 87 E 7836—Green face. Per yard | 1.06 |
| 87 E 7837—Maroon face. Per yard | 1.08 |
| 87 E 7838—Tan face. Per yard | 1.03 |

Our highest grade. For all sorts of upholstering and closed tops that do not fold. Waterproof, will not crack or peel. Width, 50 inches. Weight, per yard, about 1 1/4 lbs.

87 E 7839—Black face. Dull finish. Per yard \$2.10

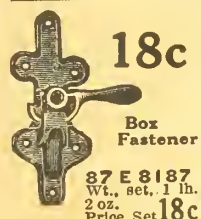
Leatherwove—Spanish Effect Excellent for covering furniture, sofa pillows, etc.

| | |
|---|--------|
| Reproduction of old Spanish patterns. Width, 50 in. Weight, per yard, about 2 lbs. | \$1.80 |
| 87 E 7840—Green color. Per yard | 1.95 |
| 87 E 7841—Dark red color. Per yard | 1.81 |
| 87 E 7842—Brown color. Per yard | 1.81 |
| 87 E 7777—Gimp to match. Give color, 25 yard rolls. Weight, about 4 oz. Per roll | 30c |
| 87 E 7775—Buttons to match. Give color, 100 in package. Weight, about 6 oz. Per pkg | 1.1c |
| 87 E 7776—Nails to match. Give color, 100 in package. Weight, about 6 oz. per pkg | 17c |

Mohair Cloth, For Buggy and Auto Tops and Curtains

Waterproof material guaranteed not to peel or crack

| | |
|--|--------|
| For Buggy and Auto Tops and Curtains. Black and white face. Black or drab back. | |
| 87 E 7850—Black back. Width, 54 in. Weight, per yard, about 1 1/4 lbs. | \$1.75 |
| 87 E 7851—Black back. Width, 36 in. For curtains. Weight, per yard, about 1 lb. 2 ounces. Per yard | .97c |
| 87 E 7852—Drab back. Width, 36 in. Per yard | .98c |



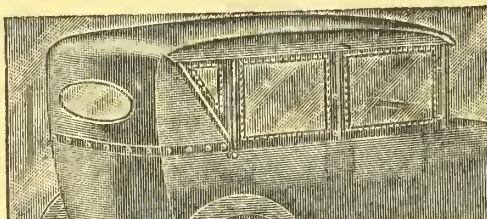
18c

Box Fastener

87 E 8187
Wt., set, 1 lb.
2 oz. Price, Set

| King Bolts | | | |
|---------------------|---|------|------|
| | Steel Wagon | King | |
| | Bolts. Wt., 2 1/2, 3 1/4 and 4 1/4 lbs. | | |
| 87 E 7960—1/4 in. | Each | | .23c |
| 87 E 7961—1 in. | Each | | .30c |
| 87 E 7962—1 1/4 in. | Each | | .42c |

| Doubletree Clevis | | | |
|-------------------|-----------------------------------|--|------|
| | | | |
| 87 E 8610— | Opening, 2 in. | | |
| | Length, 4 1/2 in. Wt., 1 1/4 lbs. | | 18c |
| 87 E 8611— | Opening, 2 1/2 in. | | |
| | Length, 6 in. Wt., 1 1/4 lbs. Ea. | | .24c |



See-Clear Transparent Sheet

Transparent Sheet or Flexible Glass

| | |
|---|--------|
| For lights in curtains, storm fronts, etc. Weight, 6 to 8 ounces. Shipping weight, 2 to 3 1/2 pounds. | |
| 87 E 8250—10x18 inches. Per sheet | \$.40 |
| 87 E 8251—20x36 inches. Per sheet | 1.35 |
| 87 E 8252—20x50 inches. Per sheet | 1.75 |



Celluloid Mender

Repairs Celluloid. Will attach Celluloid to leather curtains without stitching. One bottle will mend 100 lineal feet. Weight, 4 ounces.

87 E 9110 17c



Hair for Trimming
87 E 7785—Good grade. 6-lb. package.
\$1.75

Binding

Flat. Width, 1/2 inch. Weight, 6 oz., to piece. Price pieces of 25 yds.

| | |
|------------------|-----|
| 87 E 7780—Black | 25c |
| 87 E 7781—Green | 29c |
| 87 E 7782—Maroon | 29c |
| 87 E 7783—Tan | 29c |

7c Doz.

Knob Eyelet

87 E 7750—Fastens curtains. Leather, japanned frames. Weight, per dozen, 2 oz. 7c

Trimmers' Moss



87 E 8790—Substitute for hair. Price, per 5-lb. pkg. .97c

| Side Braces | | | |
|-------------|---|---------------------------|--|
| | Steel | 87 E 7990, Diam., 7/8 in. | |
| | Others are 1/2 in. Wt., 8, 12, 13, 14 oz. | | |
| Art. No. | Length | Each | |
| 87 E 7990 | 10 1/2 in. | 1c | |
| 87 E 7991 | 12 1/2 in. | 2c | |
| 87 E 7992 | 14 1/2 in. | 4c | |
| 87 E 7993 | 15 1/2 in. | 5c | |

| Wagon Wrenches | | | |
|----------------|-------|-----------------|--|
| | Steel | Wt., 1 1/2 lbs. | |
| Art. No. | Size | Each | |
| 87 E 7964 | 2 1/2 | 18c | |
| 87 E 7965 | 3 1/2 | 19c | |
| 87 E 7967 | 2 1/2 | 20c | |
| 87 E 7968 | 2 1/2 | 21c | |

| Hay and Hog Rack plates. | | | |
|--------------------------|--|-----|--|
| | Steel length, 12 in. Wt., per pair, 6 lbs. | | |
| 87 E 7965 | 2 1/2 | 18c | |
| 87 E 7967 | 2 1/2 | 20c | |
| 87 E 7968 | 2 1/2 | 21c | |

| Side Open Lap Links | | | |
|---------------------|---------------------------|--|-----|
| | Wt., about 5 oz. | | |
| 87 E 8040—1/4 in. | Inside, 2 1/2 in. | | |
| | Per pair | | 7c |
| 87 E 8041—1/2 in. | Inside, 3 in. Wt., 11 oz. | | |
| | per pair | | 12c |

| Pole Cap with Holdback | | | |
|------------------------|---------------------|--|-----|
| | Steel in one piece. | | |
| 87 E 7945— | Length, 3 ft. 3 in. | | |
| | Weight, 1 1/4 lbs. | | 22c |

| Steel Wagon Clevis | | | |
|--------------------|--|--|--------|
| | 87 E 7905 | | |
| | Clip and stay on a 1 in. ring. Width 1 1/2 in. Inside, wt. 1 1/2 lbs. Each | | 24c |
| | Straw Rack Irons | | |
| | Wt., each, 1 1/4 lbs. | | |
| 87 E 8380 | Each | | 16c |
| 87 E 8382 | 8 for. | | \$1.25 |

| Neckyoke Ring | | | |
|--|-----------------------|--|-----|
| | Malleable. Wt., 7 oz. | | |
| 87 E 7910—Inside small end ferrule, 1 1/4 in. Ring, 3 1/2 in. Wt., 8 oz. | | | 13c |
| 87 E 7911—Ferrule, 1 1/4 in. Ring, 3 1/2 in. Wt., 8 oz. | | | 14c |
| 87 E 7912—Ferrule 1 1/2 in. Ring, 3 1/2 in. Wt., 9 oz. | | | 15c |

| Wagon Box Strap Bolts. | | | |
|------------------------|----------------------------|-----------|-------------------|
| | A set of 8 bolts and nuts. | | |
| Article Number | Length, Inches | Wt., Lbs. | Diam. of Ser. in. |
| 87 E 7985 | 10 | 4 | 1/2 |
| 87 E 7986 | 12 | 4 1/2 | 1/2 |
| 87 E 7987 | 14 | 5 | 1/2 |
| 87 E 7988 | 16 | 7 1/2 | 1/2 |
| 87 E 7989 | 18 | 9 1/2 | 1/2 |

| Neckyoke Center | | | |
|-----------------|---|--|-----|
| | Steel | | |
| 87 E 7925— | Rings, 3/4 x 3/4 in., 7/8 in. eyes. Wt., 2 lbs. 4 oz. | | 33c |



**Cushion Cloth
and Top Lining**

Width, 54 in. Wt.,
per yard, about 8 oz.
87 E 7765—Cotton
mixed. Dark
green.
Per yard **90c**



Heavy Corduroy

For upholstering cushions and backs. Width, 30 in. Wt., per yd., about 16 oz.

| | | |
|-------------------------|------------|--|
| 87 E 7767— | | |
| Tan. Per yd..... | 88c | |
| 87 E 7768—Green. | | |
| Per yd..... | 95c | |

per pair.....16c

A black and white illustration of a 'Wagon Rub Iron'. It is a U-shaped metal component, likely made of cast iron, with a flat top bar and two curved, flared ends. The number '16c' is printed in a bold, sans-serif font above the center of the top bar.

16c

Wagon Rub Iron

87 E 8635—M a 1-

leahle. Length, 7½ in.

Width, 4 in. Wt., each,

1 lb. Pair.....30c

87 E 8636—Ea. 16c

| Singletree Hooks | | | |
|------------------|--------------------------------------|--|-----|
| | 87 E 8520— | | |
| | For 1 1/2 in. Singletree. Wt., 9 oz. | | |
| | Pair | | 11c |

| Drop Hook with Clip | | | |
|---------------------|--------------------------------|--|-----|
| | 87 E 8525— | | |
| | 1 1/4 in. Singletree. Pair | | 11c |
| 87 E 8526— | For 1 1/2 in. Singletree. Pair | | 12c |
| | Ship. wt., per pair, 9 oz. 4 | | |

| Steel Wagon Box | | |
|----------------------|-----------------|--|
| A set of 8 bolts and | | |
| Article Number | Lgth. Inches | |
| 87 E 7985 | 10 | |
| 87 E 7986 | 12 | |
| 87 E 7987 | 14 | |
| 87 E 7988 | 16 | |
| 87 E 7989 | 18 | |

**Wagon Box Ed
Iron**

28c


| Whiffletree Staples | | | |
|---------------------|---|--|-----|
| | 87 E 8190— | | |
| | Length, 4 1/2 in. Wt., 10 oz. Each | | 17c |
| 87 E 8191— | Steel. Length, 6 1/2 in. Wt., 18 oz. Each | | 30c |


Doubletree Evener Plate

Steel, Width, 1 $\frac{1}{4}$ in. Length, 8 in.
Fits any doubletree. Wt., 1 pound


87 E 7900—

20c

| Stake Pockets | | | |
|---|--------|------|--|
|  | | | |
| 87 E 8645 — | 1½ | | |
| 2½ in. Wt., | 1¼ | lbs. | |
| Each . . . | 13c | | |
| 87 E 8646 — | Set | | |
| of 8 | \$1.00 | | |



| Bolster Standards | |
|------------------------------------|--------|
| Height, 14 inches. Weight, 20 lbs. | |
| 187 E 8590 | |
| Set (4) Size 3 inches | \$4.50 |
| 187 E 8591 | |
| Set (4) Size 3 1/2 inches | \$4.85 |






Steel Box Rods

| | |
|-----------------------------------|-----|
| 3/4 in. size. Wt., 1 1/4 lbs. | |
| 87 E 7978— length, 3 ft. 3 in. | 15c |
| 87 E 7979— length, 3 ft. 7 in. | 18c |

| Singletree Straps and Hooks | | | |
|-----------------------------|---|--|-----|
| | 87 E 7935— | | |
| | Per set for 1 Singletree. Wt., 1 1/4 lbs. | | 25c |
| 87 E 7936— | Singletree Strap only | | 8c |
| 87 E 7937— | Singletree Hook only | | 5c |

| Bow Staples | | | |
|-------------|----------------------------------|--|-----|
| | 87 E 7940— | | |
| | Width, 1 1/2 in. Wt., doz. 1 lb. | | 15c |
| 87 E 7941— | Width, 2 in. Wt., doz. 1 lb. | | 16c |

| | |
|---|---|
|  | <p>ed Spring For n Seat</p> <p>In both top and springs are painted.</p> <p>—Width, 1½ in. 2 leaf. Weight, \$1.80</p> |
|  | <p>Cush</p> <p>87 E 10 s wire, 1 lbs P 87 E</p> |



ion Springs
 8080 — No. 10 steel japanned
 wire. Ht., 3 in. Wt., 3
 lb. Per dozen. 45c
 8081 — Black

| | |
|--|--|
|  | Black Oiled Cotton Duck |
| | \$1.05 per Yd. |
| 87 E 8680—Width, 50 in. Wt., per yd., about 1½ lbs. | |
| Per yard..... | \$1.05 |



Combination Welt and Gimp

Cord along one edge.
Width, $\frac{3}{4}$ in. Length,
25 yds to piece. Wt.,
 $\frac{1}{2}$ oz. per yard.

| | | |
|--------------------|------------|--|
| 87 E 7815— | Bright | |
| black rubber Drill | | |
| Per piece. | 75c | |
| 87 E 7816— | Black | |
| artificial Leather | | |
| Per piece. | 80c | |

Stay Webbing

Width, 3 in. for use
in making tops, also in
upholstering furniture,
etc. Wt., per yd., 2 oz.

87 E 7770 — $4\frac{1}{2}$
Per Yard..... **c**

87 E 7771 — Full
pieces of 70 yards.
Per piece..... **\$3.00**

Colored Head Nails

Fastens gimp
edge of seats.
Length, $\frac{1}{2}$ in.,
100 in pkg. Wt.,
4 ounces.

87 E 7790—

Black..... 16c

87 E 7791—

Green..... 16c


87 E 7792—

Maroon..... 16c

87 E 7793—

Tan..... 16c

| Spoke Holder with Rivets | | | |
|--------------------------|-------------------|--|------|
| | 87 E 8340— | | |
| | 1/4 inch. Dozen | | 75c |
| 87 E 8341— | 1/2 inch. Dozen | | 90c |
| 87 E 8342— | 1 inch. Dozen | | 95c |
| 87 E 8343— | 1 1/2 inch. Dozen | | 95c |
| 87 E 8344— | 2 inch. Dozen | | 1.05 |



Singletree Hook and Ferrules

Steel hooks, malleable
ferrules.

Diameters at small ends.
Weights, 8, 9 and 12 ounces.

| | | |
|---------|----------------|-----|
| E 7930— | 1 1/4 inch.... | 13c |
| E 7931— | 1 1/2 inch.... | 15c |
| E 7932— | 1 3/4 inch.... | 16c |



Center Clips

For 2 to 3 in. singletree
Steel, ring for whiffletree
Wts., 11, 13, 17 oz.

| | | | |
|---------------|-----------|----|--|
| 87 E 7920— | Iron | | |
| link, 1/2 in. | Each... | 15 | |
| 87 E 7921— | 1/2 inch. | | |
| | | 17 | |
| 87 E 7922— | 3/4 inch. | | |
| | | 20 | |

Wt., per doz. 10 oz.

**Welded
Center
Clips**

For 2 to 3-in. Single
tree.

87 E 7915—Size
steel in round part, $\frac{1}{2}$
inch. Weight, about
12 ounces. 10c

87 E 7916—Size
steel in round part
 $\frac{3}{4}$ inch. 13c

Buggy and Spring Wagon Shafts

Not Mailable.

Hickory, in white. Unironed. Cross bar and singletree. Holes mortised. Medium head heel.

187 E 8455—1½x1¼ inches. Wt., 12 lbs. **\$4.40**

187 E 8457—1½x2¼ inches. Wt., 15 lbs. **4.60**

Per pair

Per pair

Load, Log and Lumber Binder

SEE THAT SWIVEL

Load, Log and Lumber Binder

SEE THAT SWIVEL

Load, Log and Lumber Binder

SEE THAT SWIVEL

Load, Log and Lumber Binder

SEE THAT SWIVEL

Load, Log and Lumber Binder

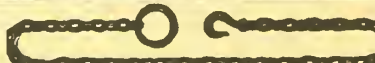
87E8057—Tongue Chains, $\frac{5}{8}$ in. Steel.
Length, 33 in. Wt. per pair, 6 lbs. Price..... **80c**

Cast Iron Skeins and Boxes

Not intended for use with truss rods. Weight,
40 to 100 lbs.


| | | Price Set of 4 | |
|------------------------------------|-----------------------|----------------|------------------|
| Size Inches | Cast Skeins Number | With Boxes | Without Boxes |
| $2\frac{1}{4} \times 8\frac{1}{2}$ | 287 E 8226 | \$6.60 | \$3.80 |
| 3 x 9 | 287 E 8227 | 7.20 | 4.40 |
| $3\frac{1}{4} \times 10$ | 287 E 8228 | 8.05 | 5.25 |
| $3\frac{1}{2} \times 11$ | 287 E 8230 | 10.10 | 6.15 |

Shipped from Factory in Central Illinois.



Fifth or Rolling Chain. $\frac{5}{8}$ -in. Link. Steel.
Length, 15 feet. Ship. wt., 14 lbs
87 E 8055—Price, each **\$2.15**

Wagon Axles with Skeins



When ordered for metal wheels it is not necessary to include boxes, as wheels have solid hubs. If desired for other wheels, boxes furnished extra at prices quoted. Prices for one axle complete with cast skeins. Be sure to give size of skeins. Wide track, \$2.75 extra.

Boxes add to above weights from 5 to 30 lbs.

| Size Skeins Inches | Weight Lbs. | Narrow | Track | Add for Boxes |
|-----------------------------------|----------------|------------|--------|------------------|
| | | Number | Price | |
| 2 $\frac{1}{4}$ x 8 $\frac{1}{2}$ | 48 | 287 E 9140 | \$5.80 | \$7.40 |
| 3 x 9 | 50 | 287 E 9141 | 5.95 | 1.40 |
| 3 $\frac{1}{4}$ x 10 | 55 | 287 E 9142 | 7.25 | 1.50 |
| 3 $\frac{1}{2}$ x 11 | 60 | 287 E 9143 | 8.15 | 1.95 |

Shipped from Factory in Illinois.

Buggy and Spring Wagon Poles

Hickory in the white. Unironed. Includes finished circle. Double head.

| Size In. | Wt. Lbs. | Number | Price, Each |
|---------------|----------|------------|-------------|
| 1 1/2 x 2 1/2 | 14 | 187 E 8465 | \$4.20 |
| 2 x 2 1/2 | 17 | 187 E 8466 | 5.75 |

Anti-Spreader Chains

Anti-Spreader Chains, 5/8 in. Steel links, end bolts and nuts to attach.

| | | |
|------------|-------------------------------|-----|
| 87 E 8050— | Length, 38 in. Weight, 20 oz. | 22c |
| 87 E 8051— | Length, 42 in. Weight, 24 oz. | 26c |

Stay Chains

87 E 8058—Stay Chains, 5/8 in. Steel. Length, 26 in. Wt., 4 1/4 lbs. per pair. Price... 50c

\$220

Wagon Renewals and Accessories

\$1.65

Four Horse Eveners

187E8935—Hickory 4-horse eveners selected stock, size about 2 x 5 x 72 inches. Shipping weight, about 20 lbs. Each..... \$1.65

Ironed Hickory Doubletrees

Malleable clevises. Wrought center plate. Varnished.
187E8860—2x4x48 in. Wt. 11 lbs. \$1.15
187E8862—Size, 1 1/2 x 3 1/2 x 42 in. Wt. 10 lbs. Each, without center plate.95

Oak Tongue Hounds

For Drop Tongues only
187E8945—Oak. Wt., 6 lbs. pair. Size, about 1 1/2 x 2 1/2 x 32 in. Per pair 95c

Oak Wagon Reaches

Finished in the white.
187E8910—2 x 4 in. length, 10 ft. \$1.85
187E8911—2 1/2 x 4 1/2 in. length, 12 ft. Weight, 40 lbs. \$2.80

Oval Plow and Wagon Singletrees

Hickory, in white. Wt., 3 to 4 1/2 lbs.
187E8930—2 1/2 in. center. 30 in. long. 25c
187E8931—2 1/2 in. center. 36 in. long. 38c
187E8932—2 1/2 in. center. 36 in. long. 38c

Hickory Oval Plow Doubletree

187E8950—Size, 3 x 36 inches long. Shipping weight, about 5 pounds. Price, each. 75c

Finished Hickory Wagon Axles

| Narrow Track | | | |
|----------------|-------------|--------------|--------|
| Article Number | Weight | Skein to Fit | Price |
| 187E8895 | 13 1/2 lbs. | 2 1/2 in. | \$1.98 |
| 187E8896 | 14 1/2 lbs. | 2 1/2 in. | 2.20 |
| 187E8897 | 16 1/2 lbs. | 3 in. | 2.80 |
| 187E8898 | 21 lbs. | 3 1/2 in. | 3.20 |
| 187E8899 | 24 lbs. | 3 1/2 in. | 3.50 |

| Wide Track | | | |
|-------------|-------------|-----------|--------|
| Article No. | Weight | Size | Price |
| 187E8920 | 13 1/2 lbs. | 2 1/2 in. | \$1.75 |
| 187E8921 | 16 lbs. | 2 1/2 in. | 1.90 |
| 187E8922 | 19 lbs. | 3 in. | 2.70 |
| 187E8923 | 22 lbs. | 3 1/2 in. | 3.15 |
| 187E8924 | 27 1/2 lbs. | 3 1/2 in. | 3.40 |

Oak Wagon Sand Boards

| Size Inches | Wt. Lbs. | Narrow Track No. | Price | Wide Track No. | Price |
|-------------|----------|------------------|--------|----------------|--------|
| 2 1/2 x 3 | 8 | 187E8965 | \$.97 | 187E8968 | \$.98 |
| 3 x 3 | 10 | 187E8966 | 1.05 | 187E8969 | 1.02 |
| 3 1/2 x 3 | 12 | 187E8967 | 1.50 | 187E8970 | 1.45 |

Finished Hickory Eveners

| Not Ironed. Dressed white. | | | | |
|----------------------------|---------------|-------------|--------|-------|
| Art. No. | Size Inches | Length Feet | Weight | Price |
| 187E8995 | 2 x 4 | 4 ft. | 9 lbs. | 70c |
| 187E8998 | 1 1/2 x 3 1/2 | 3 ft. 6 in. | 5 lbs. | 55c |

Steel Adjustable Wagon Hound

Extra heavy all steel wagon hound, quickly and easily attached or detached to any wagon with one ordinary wrench.
Made of high grade heavy plate and channel steel. Bars have large steel bushing to prevent wear on this rod. Range of front adjustment from 10 1/2 to 14 1/2 inches; rear adjustment, 12 1/2 to 20 inches. Takes 3 1/2 or 4-inch tongue. Shipping weight, about 16 lbs.
187E8310—Complete as described. \$3.75

Wagon Umbrellas

187E8685—Six ribs, length, 38 in. spread 68 inches. Covered with heavy buff colored drill. Shipping weight 8 1/2 pounds. Without holder \$2.85
87E8686—Umbrella Holder75

Stone Boat Heads

For moving large stones, farm implements, corn fodder, etc. Made of very strong cast iron and well ribbed. Strong enough to resist six times the actual working strain. Average shipping weight, 60 pounds.
187E6314—Stone boat heads only without bolts or boards \$4.50

Hickory Wagon Neckyokes

187E8925—2 1/2 inches center. Length, 40 inches. Weight, 5 pounds. 65c

Jack For Auto, Buggy and Wagon

Great leverage and immense power.
187E8560—Weight, 10 lbs. Raise 2 tons. Price, \$3.90
187E8561—Wt., 14 lbs. Raise 4 tons. Price, \$4.85
187E8562—Wt., 25 lbs. Raise 8 tons. Price, \$6.50

Heavy Wagon and Truck Jack

The adjustable foot which operates on a crane fitted with cogs overhanging the main support makes the Jack adaptable for lifting any height within a radius of 5 inches of the base to within 5 inches of top when main standard is raised to its limit.
The handles are steel, cannot come off and yet can be folded into a small space. Standard is steel with machine cut teeth. Height standard lowered 21 in. Raises 10 in.
187E8595—Jack for 3 ton trucks, weight 3 1/2 lbs. Not malleable. \$4.95

Side Board Cleats

For Wagon Boxes. Hardwood. Wt., 7 lbs.
187E8960—Size, 1 1/2 x 18 inches. Price, per dozen 99c

Hammer Straps

87E7951—Heavy. 15c

Oak Wagon Tongue With Adjustable Hound

Easily and Quickly Attached
Seasoned oak wagon tongue, painted red. Steel adjustable hounds. Steel tongue cap. Length, 11 ft. 6 in. Tongue, 3 1/2 in. thick. Quickly and easily attached to any wagon.
187E8301 \$7.50

Farm Wagon Front Bolsters

Ironed Bolsters Hind Bolsters

Ironed Wagon Bolsters

Ready for use. Made of oak. Front bolsters, including stakes. Ironing consists of full length plate on top of bolster, heavy wear plate on under side, stakes ironed on both sides, and braced; also stake rings.
The hind bolsters are ironed in a similar manner, except that they have no plates on the under side. Stakes, height, 12 in. Made in narrow track, 38 in.; or wide track, 42 in. between stakes.

| 38-Inch Front Bolsters. | | | |
|-------------------------|-----------|---------|--------|
| Article No. | Size | Weight | Price |
| 187E8820 | 3 in. | 23 lbs. | \$3.65 |
| 187E8821 | 3 1/2 in. | 28 lbs. | 4.00 |
| 187E8822 | 3 3/4 in. | 33 lbs. | 5.00 |

| 38-Inch Hind Bolsters. | | | |
|------------------------|-----------|---------|--------|
| Article No. | Size | Weight | Price |
| 187E8826 | 3 in. | 25 lbs. | \$3.35 |
| 187E8827 | 3 1/2 in. | 28 lbs. | 4.25 |
| 187E8828 | 3 3/4 in. | 32 lbs. | 4.80 |

| 42-Inch Front Bolsters. | | | |
|-------------------------|-----------|---------|--------|
| Article No. | Size | Weight | Price |
| 187E8823 | 3 in. | 25 lbs. | \$3.20 |
| 187E8824 | 3 1/2 in. | 30 lbs. | 4.40 |
| 187E8825 | 3 3/4 in. | 35 lbs. | 5.25 |

| 42-Inch Hind Bolsters. | | | |
|------------------------|-----------|---------|--------|
| Article No. | Size | Weight | Price |
| 187E8829 | 3 in. | 25 lbs. | \$3.10 |
| 187E8830 | 3 1/2 in. | 30 lbs. | 4.30 |
| 187E8831 | 3 3/4 in. | 35 lbs. | 5.15 |

Finished Oak Wagon Tongues

Made of Selected Seasoned Oak Stock Finished Ready for Irons.
187E8900—Size, 3 1/2 in. Weight, 40 lbs. Each. \$2.65
187E8901—Size, 4 in. Weight, 50 lbs. Each. 3.50

Wagon Bolster—Front

Selected oak. Finished ready for stake mortises. Weight, 14 to 22 pounds.

| Size Inches | Narrow Track No. | Price | Wide Track No. | Price |
|-------------|------------------|--------|----------------|--------|
| 3 x 4 | 187E8986 | \$.90 | 187E8989 | \$.95 |
| 3 1/2 x 4 | 187E8987 | 1.10 | 187E8990 | 1.15 |
| 3 3/4 x 4 | 187E8988 | 1.40 | 187E8991 | 1.50 |

Wagon Bolster—Hind

Selected oak. Finished ready for stake mortises. Weight, 14 to 22 pounds.

| Size Inches | Narrow Track No. | Price | Wide Track No. | Price |
|-------------|------------------|--------|----------------|--------|
| 3 x 4 | 187E8980 | \$.90 | 187E8983 | \$.95 |
| 3 1/2 x 4 | 187E8981 | 1.10 | 187E8984 | 1.15 |
| 3 3/4 x 4 | 187E8982 | 1.40 | 187E8985 | 1.50 |

Strap End Singletrees Plow and Wagon

28 inch
60c

187E8850—Made of hickory. Ironed, varnished. Length, 36 inches. Diameter of wood, 2 1/2 inches. Weight, 7 pounds. 87c
187E8851—Length, 28 inches. Diameter of wood, 2 1/2 inches. Weight, 4 1/2 pounds. 60c

36 inch
87c

Our Leader Wagon Set

Hickory Doubletree, 2x4x48 in. Lock pin clevises and stay chain rings. Singletrees, 2 1/2 x 36 in. Steel back pull hooks and ferrules. Neckyoke, 2 1/2 x 40 in. Varnished. Wt., per set, 34 lbs.
187E8888—Per set \$3.95

Steel Shaft End Length, 29 in. Japaned, nickle-tipped.
87E8070—Buggy size. Wt., 1 1/2 lbs. 45c
87E8071—Surrey size. Wt., 2 lbs. 50c
87E8072—Pole size, length, 24 in.; opening, 1 1/2 in. Wt., 3 lbs. \$1.00

Ironed Hickory Doubletree Set

A first-class farm outfit. Suitable for heavy plowing, harrowing, grading and other farm work. All selected hickory stock. Flat doubletree. Varnished. Size, 1 1/2 x 3 1/2 x 42 in. Singletrees, 2 1/2 x 30. Weight, per set, 15 lbs.
187E8865—Per set. \$2.20

Brown Canvas Buggy Top

\$10.50

To fit any size seats from 34 to 54 in. wide. A complete top with back curtain, and side curtains. Light in back curtain. Strong wood bows covered with heavy duck, with fixtures for attaching to seats. Back and side curtains attached and made to roll up and fasten. When ordering, give width of seat from outside to outside of seat ends on top. Average shipping weight, 20 lbs.
187E8690 \$10.50

All Steel 2 or 3 Horse Equalizer

Length, 92 inches, singletrees, 28 inches.
For use on Wagons, Spreaders, Binders, Mowers or any implement with center tongue. No side draft or side strain on tongue. Inside horse not crowded. Weight 60 pounds.
187E8810—All steel equalizer. Per set. \$6.25

Doubletree Set

Hickory. Singletrees have hook ends. Malleable iron clips and center plate on eveners; unpainted.
187E7197—Buggy size; wt., 8 lbs. \$1.95
187E7198—Surrey and Spring Wagon size. Weight, 10 1/2 pounds \$2.60

All Steel Plow Set

Painted Doubletree, 2 1/2 x 36 inches. Singletrees, 2x26 inches. Weight, about 16 1/2 pounds.
187E1369—Price, per set. \$1.60

Ironed Hickory Plow and Wagon Singletrees

Steel center clips, with rings and steel back pull ferrules and hooks. Varnished.

| Article Number | Diam. in. | Length in. | Wght. lbs. | Price |
|----------------|-----------|------------|------------|-------|
| 187E8845 | 2 1/2 | 28 | 3 1/2 | 65c |
| 187E8846 | 2 1/2 | 30 | 4 | 75c |
| 187E8847 | 2 1/2 | 36 | 6 | 98c |

Plow Singletree

Hickory, varnished, with steel straight center clip and steel end clips with hook.
187E8840—Diam. 2 1/2 in., length 28 in. 55c
Wt. 3 lbs. Each

Wagon

Neckyokes

Hickory. Heavy iron rings and ferrules. Varnished.

| Article Number | Diam. in. | Length in. | Weight lbs. | Price |
|----------------|-----------|------------|-------------|--------|
| 187E8855 | 2 1/2 | 38 | 8 | \$1.20 |
| 187E8856 | 2 1/2 | 42 | 10 | 1.40 |

Wagon Bows

Bent Hounds

Oak. Length, 12 ft. 1/2 in. thick. Width 1 1/2 in. Five piece set. Wt., abt. 15 lbs.
187E8725—Per set \$1.90
187E8720—Oak. Width 3 in. Depth, 2 in. Weight 20 lbs. Narrow Track \$2.20

Ironed Buggy Shafts and Poles

Straight grained hickory shafts and poles ironed complete. Shafts size, 1 1/2 x 2 inches, with sword end singletrees. Painted shafts furnished with leather ends. Poles size, 1 1/2 x 2 1/2 in., furnished with Neckyoke, Doubletree and Stay Straps. Common 1-inch eyes with 1/2-inch holes unless described with Bradley eyes. Weights: shafts, 23 pounds; poles, 35 pounds. Not malleable.

| Article No. | Item | Color | Eyes | Price |
|-------------|----------------------------------|------------|-------------|-------------|
| 187E7180 | Shafts | Unpainted | Common | Pair \$5.85 |
| 187E7182 | Shafts | Dark Green | Common | Pair 6.85 |
| 187E7184 | Shafts | Dark Green | Bradley | Pair 9.25 |
| 187E7190 | Pole | Unpainted | Common | Each 9.35 |
| 187E7192 | Pole | Green | Common | Each 6.70 |
| 187E7194 | Pole | Green | Bradley | Each 9.85 |
| 187E7195 | Pole for Surrey or Spring Wagon. | Unpainted. | Plain eyes. | \$9.90 |

For a good job of plowing use Sattley plows

***Montgomery Ward & Co Chicago

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